

The market that worries Detroit

(Page 199)

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BUSINESS WEEK

A McGRAW-HILL PUBLICATION

FIFTY CENTS

NOV. 16, 1957

Killian of MIT: As the President's new Assistant for Science, his job is to put us ahead of the Russians.

(Page 39)

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One for the money – and for the show!

A **crystal-clear showcase** is what many a manufacturer seeks in a package for his product. He also wants protection and durability plus ease of fabrication and low cost.

A **brilliant answer** to this multiple need can be found in **PLIOVIC S70**—newest of the custom-made vinyl resins by Goodyear. Through specific design, **PLIOVIC S70** can be calendered into a smooth, tough, crystal-clear sheet that is readily printed and heat-sealed into sparkling showcases for a wide range of products.

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If you are interested in more "show" for your money, why not learn more about clear sheeting made with **PLIOVIC S70**? Find out also about its advantages in other uses for vinyl resins. The full story is yours, simply by writing to: Goodyear, Chemical Division, Dept. K-9415, Akron 16, Ohio.



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GENERAL BUSINESS

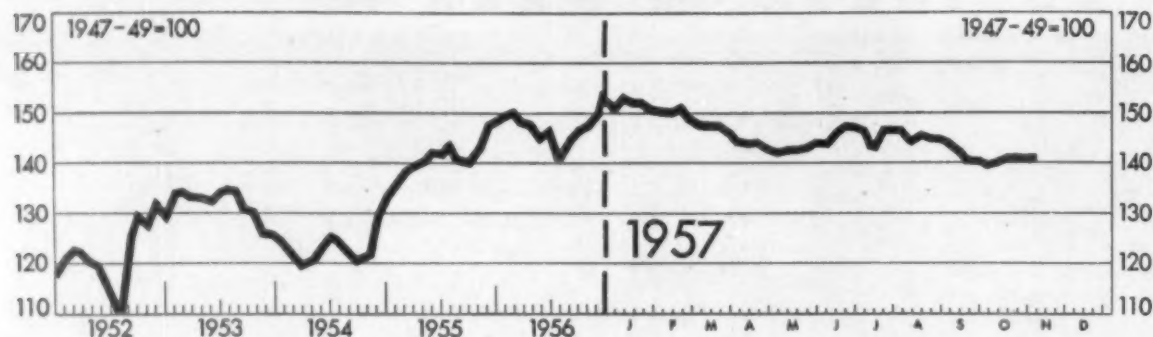
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FIGURES OF THE WEEK



BUSINESS WEEK INDEX (chart)

1946 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
91.6	149.0	141.0	↑141.7	141.8

PRODUCTION

Steel ingot (thous. of tons).....	1,281	2,466	2,070	↑1,996	1,984
Automobiles and trucks.....	62,880	162,131	59,847	↑154,894	169,879
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.).....	\$17,083	\$67,456	\$54,661	\$51,763	\$54,400
Electric power (millions of kilowatt-hours).....	4,238	11,522	11,709	11,860	11,914
Crude oil and condensate (daily av., thous. of bbls.).....	4,751	7,050	6,729	6,712	↑↑6,796
Bituminous coal (daily av., thous. of tons).....	1,745	1,758	1,658	1,647	1,628
Paperboard (tons).....	167,269	283,400	299,922	292,063	287,763

TRADE

Carloadings: miscellaneous and L.C.I. (daily av., thous. of cars).....	82	75	69	67	68
Carloadings: all others (daily av., thous. of cars).....	53	58	55	51	51
Department store sales index (1947-49 = 100, not seasonally adjusted).....	90	124	127	127	122
Business failures (Dun & Bradstreet, number).....	22	219	244	250	266

PRICES

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100).....	311.9	422.3	387.7	384.1	384.6
Industrial raw materials, daily index (BLS, 1947-49 = 100).....	↑↑73.2	99.5	86.7	85.5	84.9
Foodstuffs, daily index (BLS, 1947-49 = 100).....	↑↑75.4	81.1	81.9	82.7	83.2
Print cloth (spot and nearby, yd.).....	17.5¢	19.2¢	17.6¢	17.4¢	17.4¢
Finished steel, index (BLS, 1947-49 = 100).....	↑↑76.4	168.8	↑181.7	181.7	181.7
Scrap steel composite (Iron Age, ton).....	\$20.27	\$61.17	\$37.33	\$33.33	\$33.00
Copper (electrolytic, delivered price, E & M.J. lb.).....	14.045¢	36.000¢	26.770¢	26.538¢	26.900¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$1.97	\$2.35	\$2.14	\$2.14	\$2.18
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	**30.56¢	33.20¢	33.48¢	33.82¢	34.12¢
Wool tops (Boston, lb.).....	\$1.51	\$2.00	#	\$1.97	\$1.90

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	17.08	46.37	41.23	40.58	40.04
Medium grade corporate bond yield (Baa issues, Moody's).....	3.05%	4.22%	4.97%	5.07%	5.10%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	¾-1%	3%	4½%	4½%	4½%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	↑↑45,820	55,588	54,344	55,805	54,800
Total loans and investments, reporting member banks.....	↑↑71,916	85,602	87,267	86,743	86,277
Commercial and agricultural loans, reporting member banks.....	↑↑9,299	30,121	32,137	↑31,756	31,751
U. S. gov't guaranteed obligations held, reporting member banks.....	↑↑49,879	25,752	25,324	↑25,191	24,959
Total federal reserve credit outstanding.....	23,888	25,762	25,563	24,972	25,225

MONTHLY FIGURES OF THE WEEK

	1946 Average	Year Ago	Month Ago	Latest Month
Employment (in millions).....October.....	55.2	66.0	65.7	66.0
Unemployment (in millions).....October.....	2.3	2.1	2.6	2.5
Average weekly earnings in manufacturing.....October.....	\$43.82	\$82.21	\$83.20	\$82.16
Wholesale prices (U. S. Dept. of Labor BLS, 1947-49 = 100).....October.....	78.7	115.6	118.0	117.6
Retail sales (seasonally adjusted, in millions).....October.....	\$8,541	\$15,896	\$16,919	\$16,561
Retailers' inventories (seasonally adjusted, in billions).....September.....	\$9.8	\$23.4	\$24.3	\$24.5

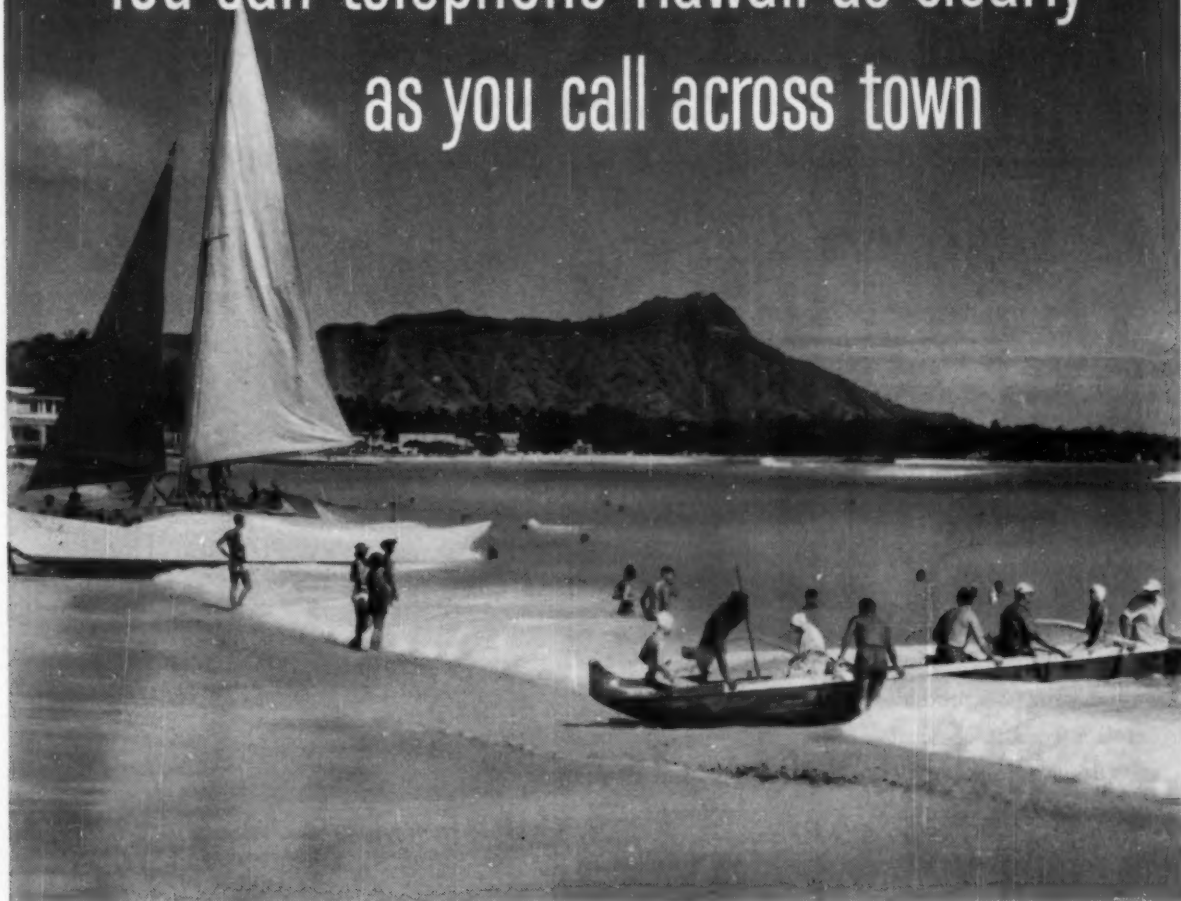
* Preliminary, week ended November 9, 1957.
† Revised.

†† Estimate.
** Ten designated markets, middling ½ in.

§ Date for 'Latest Week' on each series on request.
Insufficient trading to establish a price.

THE PICTURES—Avro Aircraft Ltd.—62, 68; Grant Compton—98, 99, 100, 159 (bot. lt.); Walter Curtin—61; Clyde Hare—132, 133; Harris & Ewing—159 (third lt.); I.N.P.—42, 141 (bot.), 158 (second lt.), 159 (third rt.); Kaukauna Machine & Foundry—194; Herb Kratovil—158 (second rt.); McGraw-Hill World News—137; Robert Phillips—141 (top); Gene Pyle—46, 47; Joan Sydow—39; U.P.—158 (top lt. & third lt.), 159 (top lt. & bot. rt.); W.W.—cover, 158 (fourth lt., bot. lt., top rt., third rt., fourth rt., & bot. rt.), 159 (second rt. & fourth rt.); Dick Wolters—159 (second lt.); Mohammed Youssef—140.

You can telephone Hawaii as clearly as you call across town



Waikiki Beach in Honolulu

New underseas telephone cables now link United States mainland and the Hawaiian Islands

Another historic advance in communication service has just been completed.

For years you have been able to call Hawaii by *radiotelephone*. Now new telephone *cables* have been added, stretching for 2,400 miles under the Pacific Ocean, connecting the United States mainland and Hawaii.

Added to the present radiotelephone circuits, the new cable system provides more and faster and better service. It makes it possible for you to telephone to and from the Hawaiian Islands as clearly as you call across your own home town. Just give the operator your call.

Bell Telephone System



KNITTING THE WORLD TOGETHER

The original certificate of incorporation, American Telephone and Telegraph Co., February 28, 1885, includes these prophetic words: "... and each and every of said cities, towns and places is to be connected with each and every other city, town or place in said states and countries, and also by cable and other appropriate means with the rest of the known world as may hereafter become necessary or desirable ..."

**Forethought
costs less than
Afterthought**

SO . . .

Design These in When you Begin!

If you need mechanical or electrical counters in any of your new products, here's a word to the cost-wise designer: *Design them in, when you begin . . . don't tack them on later.*

For if you'll give us a chance to work with you, right from the beginning, chances are we can save you time and money by adapting or modifying a *standard* Veeder-Root Counter to your needs . . . where you might get into a costly special job if you went about it alone. What's more, you save time in your engineering, purchasing and assembly departments.

Count on Veeder-Root to help you in every way . . . from design to delivery. Write:



**Everyone...
Can Count on
Veeder-Root
INCORPORATED**

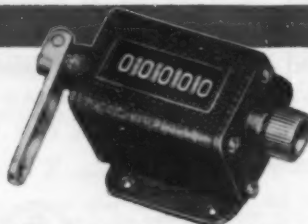
Hartford, Conn. • Greenville, S. C. • Chicago
New York • Los Angeles • San Francisco • Montreal
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Series 1370 High Speed Counter (1500 to 2500 rpm) built into a wide variety of equipment.



Series
1205 Reset
Magnetic Counter with panel
mount and lock and key.



Series 1122 Small Reset Ratchet Counter.



Special Longitude Counter, one
of many made for aircraft navi-
gational equipment.

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READERS REPORT



Unique Lighting

Dear Sir:

I read with considerable interest your excellent story [BW—Sep. 21 '57, p28] describing the wonders that the Port of New York Authority is working at New York International Airport. . . .

For a better idea of how attractive the airport will really be, perhaps your readers will be interested in the enclosed photo which shows a portion of . . . International's fabulous but still uncompleted Terminal city area. . . .

H. ZANE ROBBINS

GENERAL ELECTRIC CO.
 WINSTON-SALEM, N. C.

Canned Smog

Dear Sir:

Upon reading Los Angeles Japers Can Their Smog [BW—Oct. 26 '57, p54] about the availability of a canned smog, I was reminded of a product marketed in the San Francisco Bay area. It was similar only in its practical joke value.

Three years ago, while stationed at the Naval Air Station, Moffett Field, Calif., I saw displayed in several drug stores and gift shops cans of Pure Northern California Air. The "sales pitch" was aimed at the consumer to "—send some pure Northern California Air to your smog-bound friends in Southern California."

The degree of hilarity depended, naturally, on an easily antagonized recipient.

CMDR. S. M. KEVAN USN
 U. S. NAVAL GUN FACTORY
 WASHINGTON, D. C.

German Film Industry

Dear Sir:

Re: West Germany's Film Industry [BW—Oct. 26 '57, p74].

Announcing the arrival of

America's 3rd full line of electric motors

EXPANSION of the A. O. Smith line is great news for manufacturers and users of electric-motor-powered products. With a third complete motor line on the scene ($\frac{1}{8}$ to 800 hp), you can look forward to the buying advantage of full-range competition.

Remarkable flexibility of basic A. O. Smith model design offers freedom from the usual limitations of standard motors. Torque, speeds, frames and mountings can be precisely matched to your needs. Yet cost is directly competitive with that of motors that force modification of your product designs.

A. O. Smith's complete line includes fractional and integral hp motors ($\frac{1}{8}$ to 800 hp); hermetic motors ($\frac{3}{4}$ to 100 hp); vertical hollow shaft motors (1 to 700 hp); gear motors (1 to 30 hp). 332 factory service stations provide 24-hour action . . . anywhere in the United States.

Write for free, technical bulletin describing America's third full line of electric motors.

Through research  . . . a better way

A.O. Smith

C O R P O R A T I O N

MILWAUKEE 1, WISCONSIN

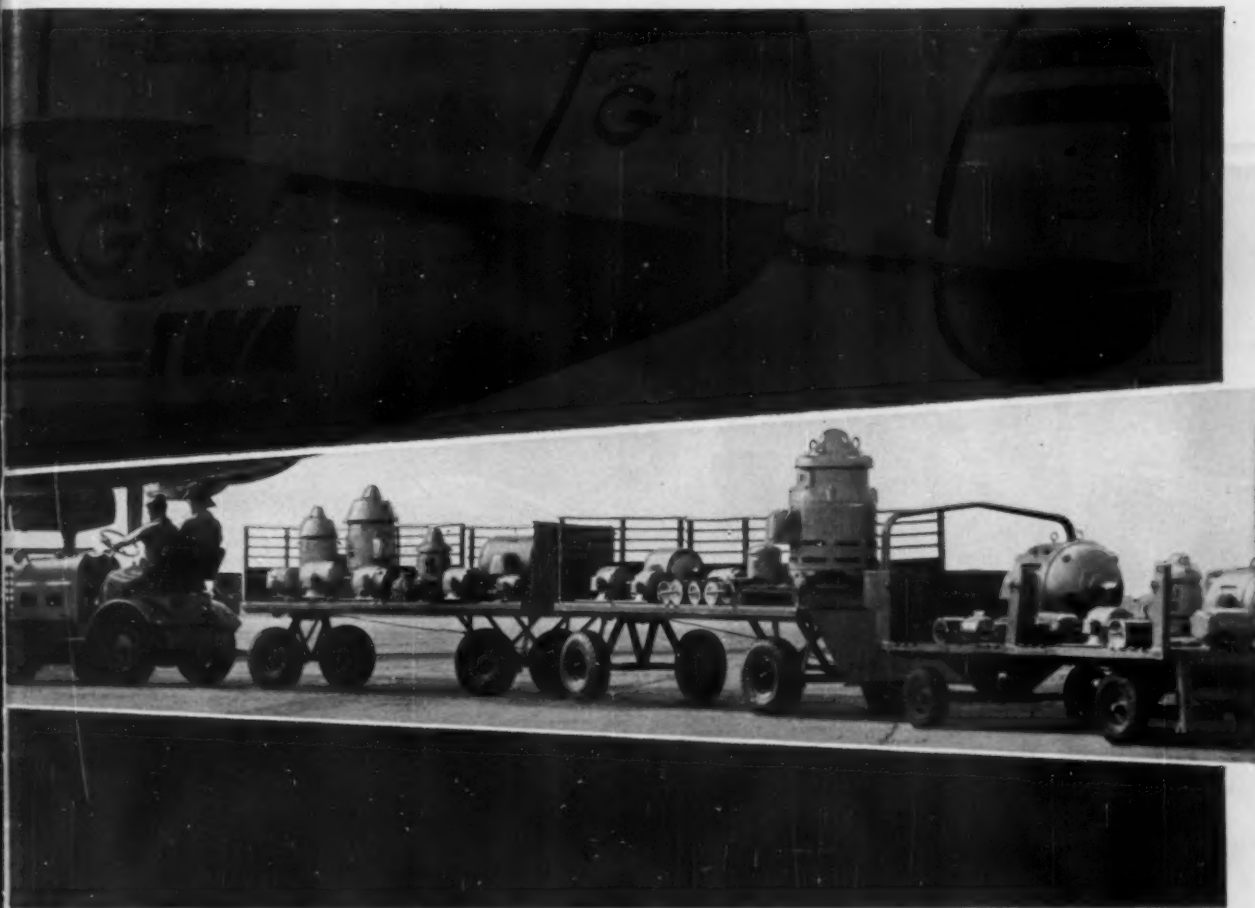
. . . where creative skill with steel serves you through better products and processes for home, farm, industry and government.

A. O. Smith INTERNATIONAL S. A., Milwaukee 1, Wisconsin, U. S. A.

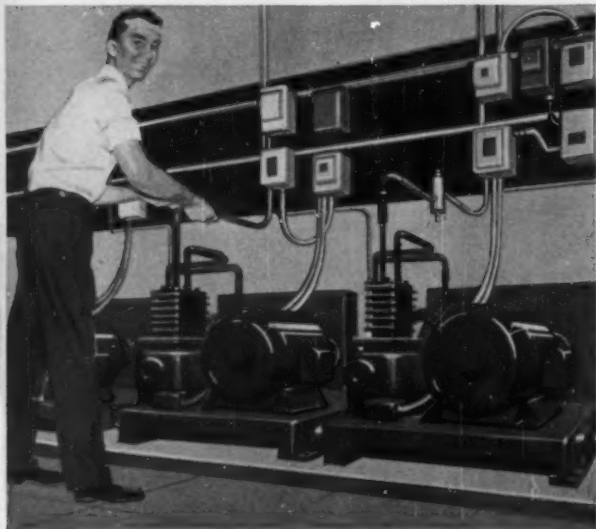


A. O. SMITH POLYPHASE INTEGRALS

(1 to 800 hp) pack plenty of reserve power to "walk through" peak loads without hesitation. Drip-proof, weather protected, totally enclosed fan-cooled and totally enclosed explosion-proof motors are available. Features include dual balanced ventilation; doubly protected bearings that assure fool-proof lubrication; pressure-cast and dynamically balanced rotors.

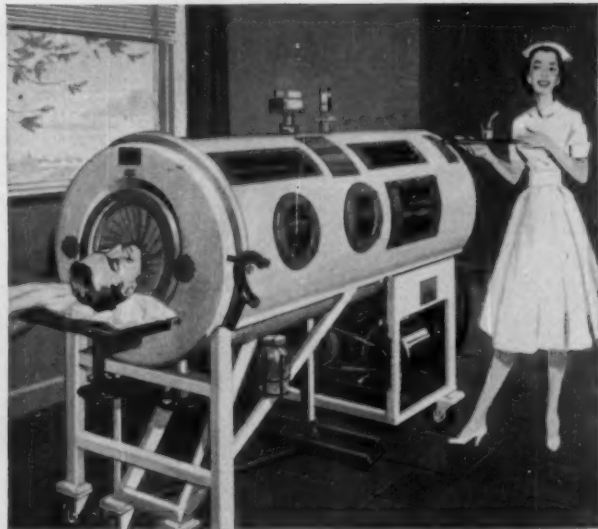


How we work steel to make steel work for you



A. O. SMITH SINGLE-PHASE INTEGRALS

(1 to 5 hp) have an outstanding reputation for dependability of service and low-cost maintenance. A. O. Smith's exclusive sealed starting switch, totally enclosed in the end-frame, promotes long life for both switch and motor. Basic motors have rolled steel, drip-proof frames, with optional mountings to meet both old and current NEMA standards.

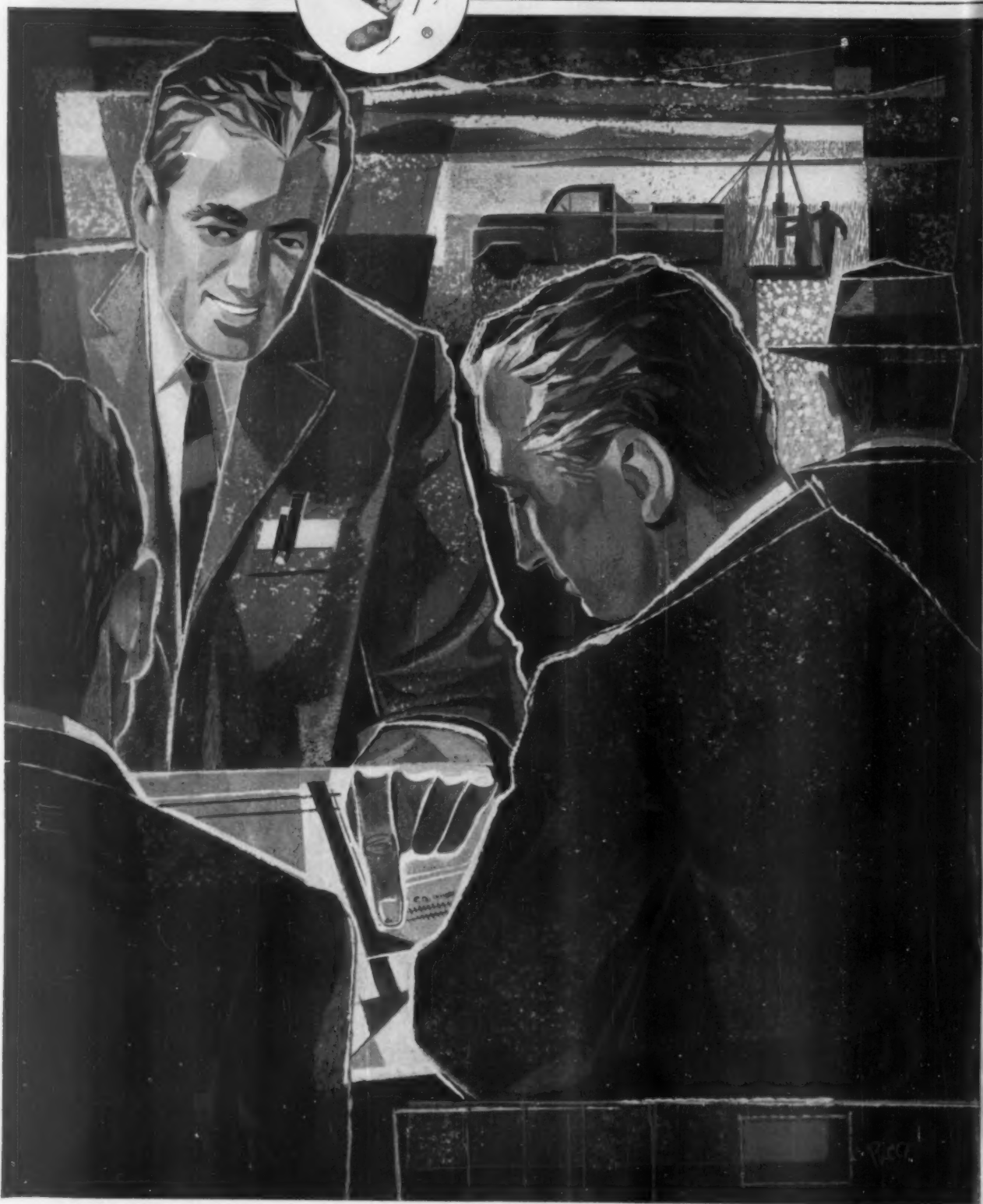


A. O. SMITH FRACTIONALS

($\frac{1}{8}$ to 1 hp) available in capacitor start or polyphase induction models with rigid or resilient base. All can be quickly and easily application-engineered to your most exacting demands. In thousands of actual cases, replacement with an A. O. Smith fractional has proved to be the best assurance against future breakdown.



WHY INDUSTRY IS



MOVING TO CHESSIE'S RAILWAY

Expert at work

The site selected by a major company for an important branch plant was ideal for the purpose. Suitable water was an obvious requirement before acquisition. It was a Chesapeake and Ohio Industrial Development man, wholly familiar with the tract, who suggested the spot where plenty of good water was found at seventy feet, after earlier drillings were less successful.

A portion of the property was improperly zoned. It was the C&O man who negotiated a zoning change with township officials. They knew him and agreed with his idea that the plant, attractively designed and

landscaped, and its payroll and taxes, would be an asset to the community.

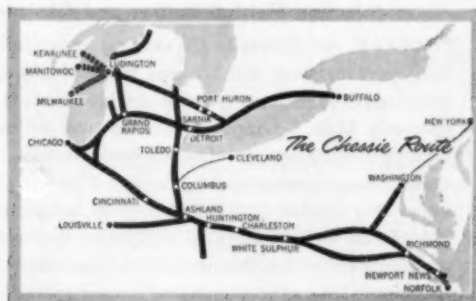
These are examples of how Chesapeake and Ohio's Industrial Development department experts can help. Such matters, possibly troublesome to a buyer on his own, are often best handled by a third party. There's a distinct reason why intricate negotiations are routine to C&O specialists. They know their territory and the people in it, and have their confidence. Call on them for assistance without cost to you when you are looking for an industrial site. Chesapeake and Ohio experts make it easy!



Write for new booklet describing industrial resources and opportunities in C&O territory. Address: Wayne C. Fletcher, Director of Industrial Development, 3204 Terminal Tower, Cleveland 1, Ohio.

Chesapeake and Ohio Railway

SERVING: VIRGINIA • WEST VIRGINIA • KENTUCKY
OHIO • INDIANA • MICHIGAN • SOUTHERN ONTARIO



Celanese

OFFERS ALL PACKAGING



The unique properties of Fortiflex-A—particularly its toughness and resistance to chemical attack at elevated temperatures—offer new opportunities in the packaging of food, drugs, cosmetics and chemicals. Applications for Fortiflex-A include: thin wall bottles and vessels... light weight, disposable containers vacuum formed from sheet stock... sterilizable films and coatings.

Injection Molded Bottles and Containers

Fortiflex-A molds easily in existing polyethylene molds. However, its great rigidity and toughness make possible impressive economies in wall thickness when molds are specially built. Savings in material weight over conventional polyethylene average as high as 40%. The exceptional thermal resistance of Fortiflex-A permits the packaging of hot liquids and semi-solids at temperatures up to 225° F., as well as surgical equipment that requires post-packing sterilization. Its chemical and permeation resistance recommend it as a replacement for expensive materials in the packaging of highly corrosive chemicals.

Blown Bottles and Containers

Lightness with strength and rigidity are obtainable in blow moldings of Fortiflex-A. This molding technique offers valuable economies in material weight, a faster rate of production and real savings in shipping costs of packaged merchandise. When protection against light is required, dense pigment can be incorporated so as to give complete opacity. Blow molded bottles of Fortiflex-A can be produced at only $\frac{1}{8}$ the weight of glass and $\frac{1}{4}$ the weight of metal.

Supported and Unsupported Films

As a potential material for supported and unsupported films, the packaging advantages of Celanese Fortiflex-A open up a new range of opportunities in food, medical and industrial packaging. Films of Celanese Fortiflex-A will make possible sterilization after packaging. They exhibit great toughness and durability, virtually zero vapor transmission, and good transparency. The characteristic rigidity of Celanese Fortiflex-A will produce a film easily handled on standard automatic packaging machinery.

FORTIFLEX-A

A POLYOLEFIN PLASTIC



2 REASONS WHY FORTIFLEX-A
BELONGS IN YOUR
PACKAGING PROGRAM

THESE ADVANTAGES



Vacuum Forming

Extruded sheeting of Celanese Fortiflex-A exhibits excellent vacuum forming characteristics. Deep drawing qualities and minimum post-mold shrinkage give advantages in this application. The great toughness and durability of extruded sheeting of Celanese Fortiflex-A are factors that will contribute to more efficient, more economical packaging. Extruded sheeting of Celanese Fortiflex-A is now available from suppliers. The Celanese Sales Development Department will be glad to supply names and addresses.

For complete information about Celanese Fortiflex-A—production-run quantities, test quantities, prices—write Sales Development Department, Celanese Corporation of America, Plastics Division, Dept. 129-K, 290 Ferry Street, Newark 5, N. J.

Celanese® Fortiflex®

Celanese

PLASTICS and RESINS

Celanese Corporation of America, Plastics Division, Newark 5, N. J.

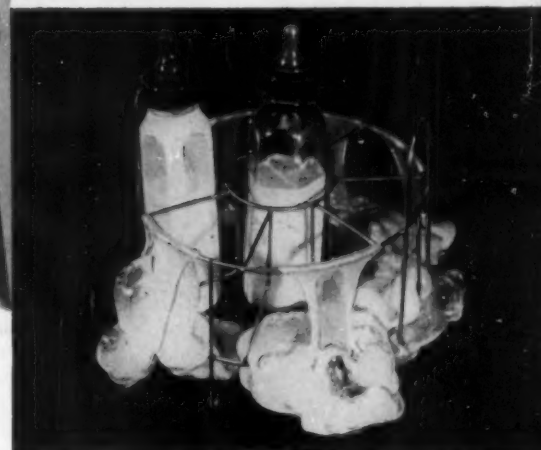
Canadian Affiliate: Canadian Chemical Co., Limited, Montreal, Toronto, Vancouver

Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Avenue, N. Y. 16, N. Y.

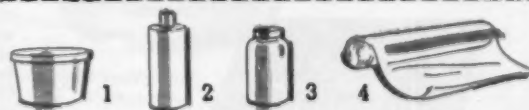


STRENGTH AND RIGIDITY IN THIN WALLS!

Camera time-exposure dramatizes toughness and rigidity of Fortiflex-A. Liquid filled, blown bottle is dropped from approximately shoulder height onto hard surface. Close-up, taken after test, shows bottle to be undamaged.



HEAT RESISTANCE! Laboratory test displays the superior heat resistance of Celanese Fortiflex-A. Bottles molded of Celanese Fortiflex-A, glass and ordinary polyethylene were sterilized for 15 minutes at 15psi, 250° F. Only the glass bottle and Fortiflex-A bottle withstood the sterilization temperature. The ordinary polyethylene bottles were reduced to an amorphous state.



Sales Development Department, Celanese Corporation of America, Dept. 129-K, Plastics Division, 290 Ferry Street, Newark 5, N. J.

- ☐ I am interested in more information about Fortiflex-A for possible application as _____ (enter number).
- ☐ Have a representative call on me.

Name _____

Title _____

Company _____

Address _____

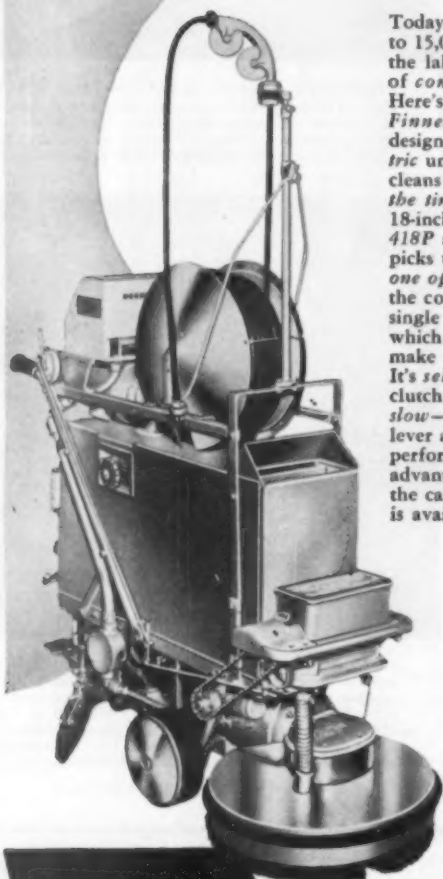
City _____ State _____

SMALL-AREA BUILDINGS...

Save $\frac{2}{3}$ of Every Hour
of Scrubbing Time

WITH A

COMBINATION SCRUBBER-VAC!



... Also can be used
for dry work — steel-
wooling, et cetera

(Powder Dispenser
is an accessory)

Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of combination-machine-scrubbing. Here's a Combination Scrubber-Vac, Finnell's 418P at left, that's specially designed for such buildings. This electric unit, with its 18-inch brush spread, cleans floors in approximately one-third the time required with a conventional 18-inch machine and separate vac. The 418P applies the cleanser, scrubs, and picks up (damp-dries the floor)—all in one operation! Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's self-propelled, and has a positive clutch. No switches to set for fast or slow—slight pressure of hand on clutch lever adjusts speed to desired rate. Vac performs quietly. The 418P also serves advantageously in larger buildings for the care of floors in narrow aisles, and is available on lease or purchase plan.

Finnell makes Scrubber-Vac Machines for small, vast, and intermediate operations, and in gasoline or propane as well as electric models. From this complete line, you can choose the size and model that's exactly right for your job. It's also good to know that a Finnell Floor Specialist and Engineer is nearby to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest Finnell Branch or Finnell System, Inc., 3811 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of
Power Scrubbing and Polishing Machines



BRANCHES
IN ALL
PRINCIPAL
CITIES

I assume that by Germany's "first class pre-war film industry" you only refer to the admirable qualities of its cameras and film. Artistically, of course, it ground out reprehensible Nazi trash which, mercifully, was unnoticed abroad except in connection with German propaganda. The greatest artists in the German cinema either had to go into exile or were barred from employment and subjected to political persecution.

... But just as the respected Italian industry of today looks back with distaste to the days of Mussolini, I believe the record should be set straight on Germany.

JOHN E. ULLMANN
CONSULTING ENGINEER
NEW YORK, N. Y.

• Business Week was referring, of course, to German films made between the end of World War I through the early 1930s. The Museum of Modern Art has seen fit to show movies from this period primarily because of their artistic merit, as well as their technical excellence.

A Missing "N"

Dear Sir:

We read with extreme interest your article Chemical Analysis Yields to Pushbutton Techniques [BW—Aug.31'57,p62] which gives reference to the Ronceverte operation of Beckman Instrument, Inc. . . .

We would like to merely call your attention to spelling of Ronceverte which was incorrectly carried in your article as Roceverte. . . .

RALPH O. FISK
PRESIDENT
CHAMBER OF COMMERCE
RONCEVERTE, W. VA.

Pig-Iron Bob

Dear Sir:

Re: your article on Australian Steel Output [BW—Oct.26'57,p76], allow me to differ with your correspondent on Mr. Menzies' nickname ("Iron Bob"). Not only his Labor party opponents but everyone in Australia happily refers to him as Pig-Iron Bob. . . .

W. MITCHELL
NEW YORK, N. Y.

Letters should be addressed to Readers Report Editor, BUSINESS WEEK, 330 West 42nd Street, New York 36, N. Y.

"Sweet little money-maker...before we put the wheels on!"



Funny joke! But the boss is not amused.

His company supplies the body of that cart to other manufacturers — successfully, too. Just recently he decided to market a model of his own, complete with wheels. Yes . . . they're selling fast. But the company's losing money on every shipment.

What happened? With late and inadequate cost reports on that wheel assembly, the price was set too low. Weeks passed before the boss found out. And it'll be weeks more before his profits stop taking a licking.

How different with Keysort punched-card controls! With Keysort's meaningful *on time* job-cost summaries, management would have known how costs were running

at every stage . . . could have acted *fast* to keep them in line. Thus, price could have been set to *cover* costs . . . and the new product marketed with a healthy profit included.

Keysort punched cards — speeded by the new Keysort Data Punch which simultaneously imprints and code-punches production or sales information — today offer the most practical, most flexible means of obtaining the fast, accurate, comprehensive reports you need for complete control of your business and profits. Without disrupting your present accounting methods. At remarkably low cost.

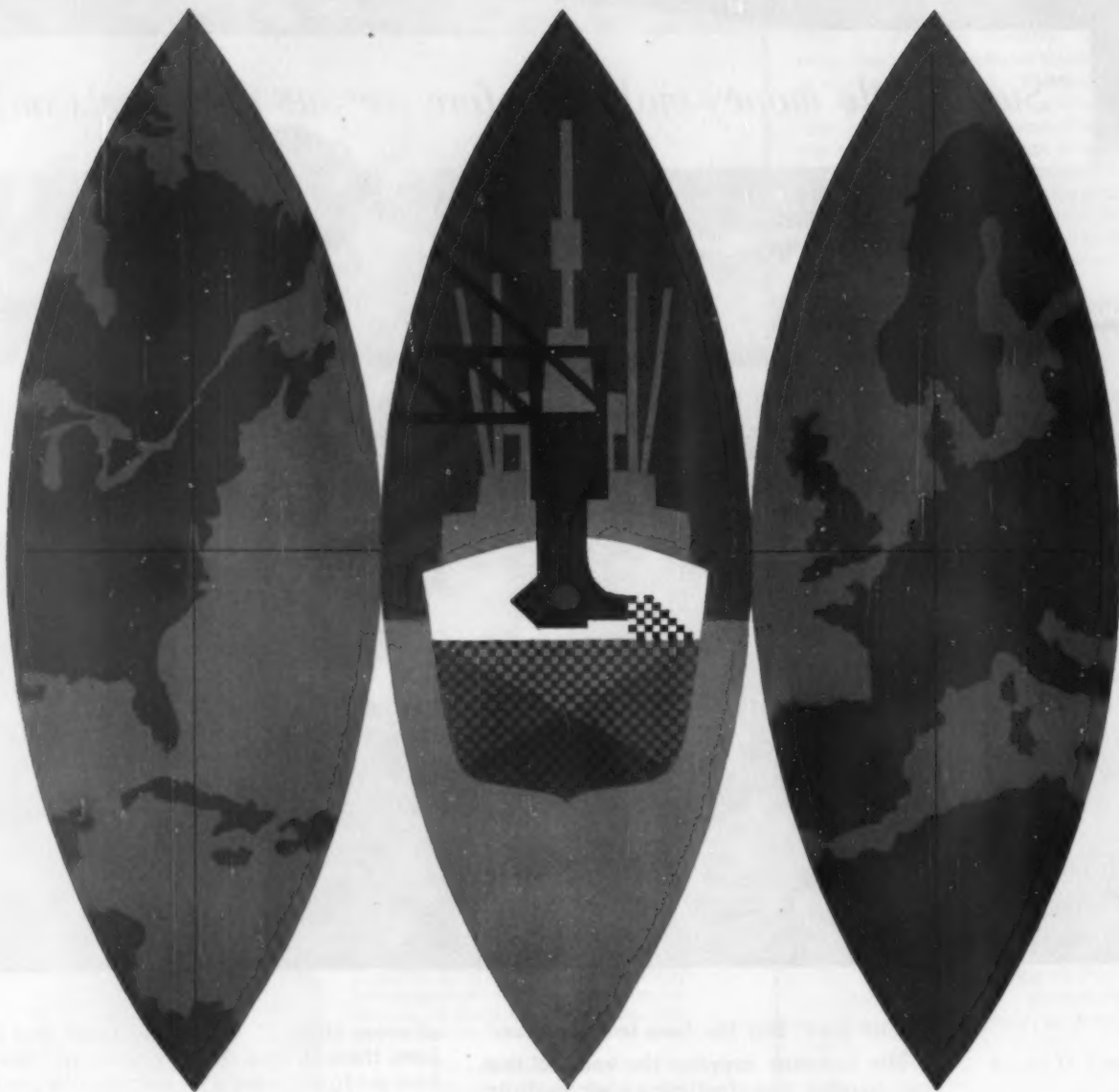
The nearby Royal McBee man has a presentation which will show you how it's done. Phone him, or write us.

MCBEE KEYSORT.

PUNCHED-CARD CONTROLS FOR ANY BUSINESS

ROYAL MCBEE Corporation

PORT CHESTER, N. Y., Offices in principal cities.
In Canada: The McBee Company, Ltd., Toronto 16



STEEL HANDS SPEED COAL TO EUROPE

■ No kid glove job—loading millions of tons of coal a year to fuel Europe's furnaces. That's why, at the world's most modern coal docks at Newport News, Lukens "T-1" steel was chosen for the mighty muscled fists of huge new coal trimmers.

This special alloy steel is tough. So tough the builder was able to reduce plate thickness—producing a lighter, more mobile machine. Deftly and smoothly these steel-gloved



robot hands now spread their black cargo in the holds of ship after ship, with negligible wear and cost.

Lukens has been teaming up with fabricators for generations to provide specialty steels for the toughest jobs. In fact when the first ocean collier cleared through the Panama Canal in 1914, Lukens had been a leading plate mill for 89 years.

LUKENS STEEL COMPANY, COATESVILLE, PA.

World's Leading Producer of Specialty Carbon, Alloy, Armor & Clad Steel Plate • Heads • Plate Shapes • For Qualified Equipment Builders

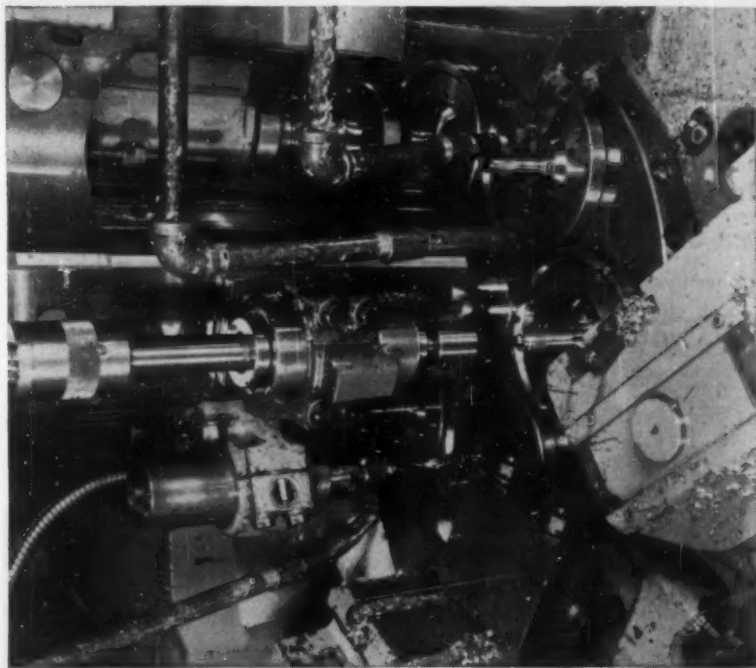
At Porter-Cable Machine Company.....



6-Spindle Automatic saves \$12,700 on this one job!



A savings of over 7½¢ was realized on each of these small brass Brush Holder Bodies for electric motors when this formerly subcontracted work was handled on one of their 1¼" Warner & Swaseys.



Porter-Cable of Syracuse, N. Y., veteran producer of wood-working tools and powered garden equipment, reports through their Chief Manufacturing Engineer, Charles Allen:

"Our two Warner & Swasey 6-Spindle quick setup Automatics have an important place in our cost-reduction program. They consistently turn out the highly accurate parts our products require, saving us money on jobs that run in lot sizes from a few hundred to many thousand pieces."

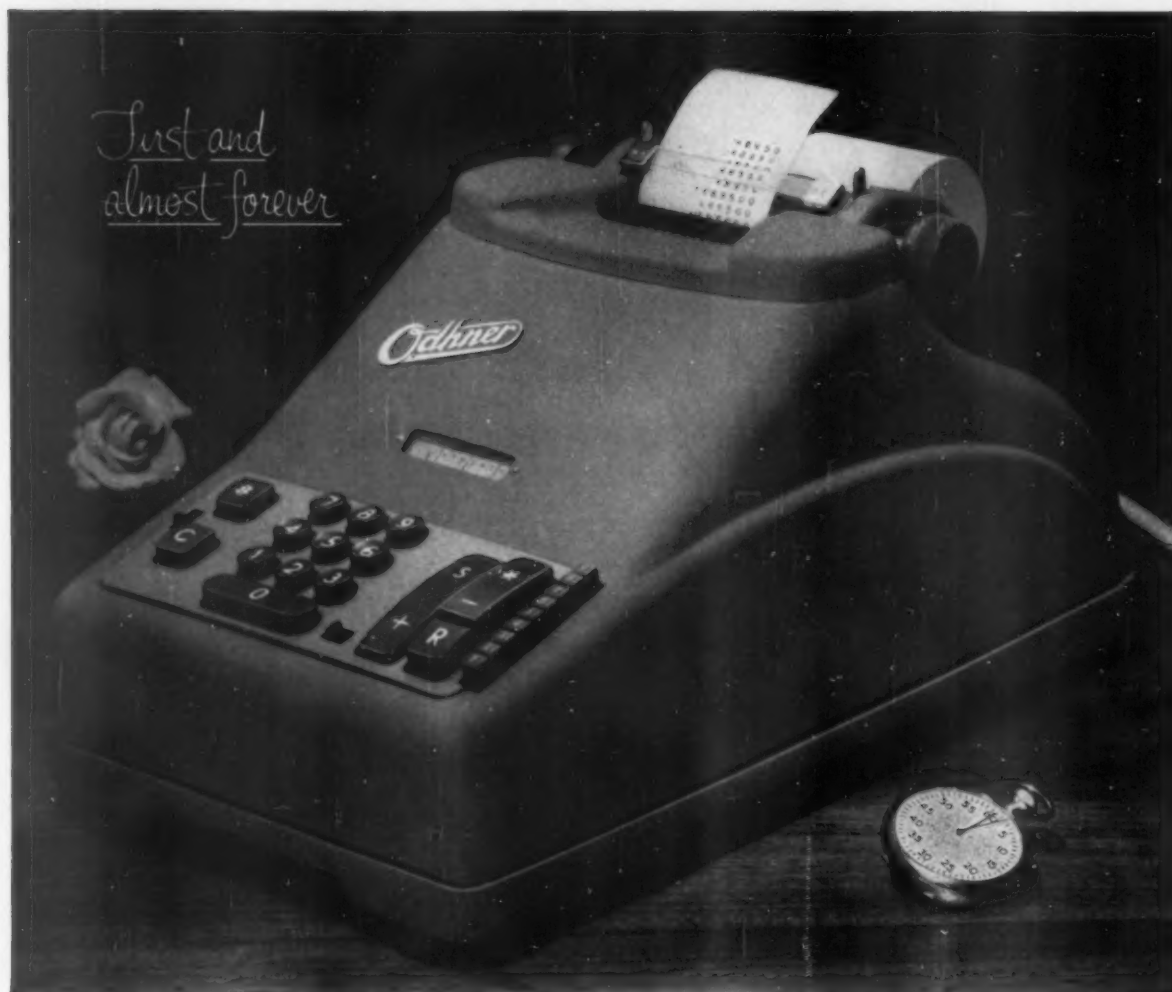
Here's what Warner & Swasey 6-Spindle Automatics did for Porter-Cable Company:

- **ACCURACY**—Tolerances of plus or minus .001" easily held, maintaining high product quality.
- **SAVINGS**—Second operations were eliminated—handled complex work formerly subcontracted.
- **FAST SETUP—SMALL LOTS**—Jobs previously run on hand screw machines now more efficiently handled on the Automatics.
- **VERSATILITY**—Machining of tougher materials, parts with threads at each end, multiple diameters, broached holes are all now routine operations.

Why not have our Field Engineers evaluate your operations with a view to highlighting jobs that could be more profitably machined on modern Warner & Swasey Multi-Spindle Automatics? He's as near as your phone—call him today!



YOU CAN PRODUCE IT BETTER, FASTER, FOR LESS...WITH A WARNER & SWASEY



FASTEST EVER—INSIDE. FAST AS EVER, OUTSIDE. Odhner reduces multiplying time *mechanically*. Time gained means work saved.

New automatic multiplying short-cut **Odhner** outspeeds, outlives all other ten-key adding machines

This great new adding machine multiplies in one-third the standard time. The new short-cut Odhner must outlive your present unit because it multiplies with a fraction of the customary wear. And with the new Magic-Multiplier Row, you select your multiplier easily—with no more cycle counting. The little finger handles the two major operating bars: Add-Subtotal and Subtract-Total.

FACIT CALCULATORS, ODHNER ADDING MACHINES AND HALDA TYPEWRITERS. See the classified phone book or write:

FACIT INC. 404 Fourth Ave., New York 16, or 235 Montgomery St., San Francisco 4



TIP-TAP CONTROL. Large operating bars, to the right of the numeral keyboard, respond to a tap of the little-finger tip.



ALL-DAY TEST. Give your fussiest operator one day on the new automatic multiplying short-cut Odhner; compare her performance.

Your business is in the Age of Electronics

Your engineers

productive giants—or shackled Lilliputs?

You employ the finest development engineers to help your Company progress. But do you equip them with modern technical tools? Or must they waste priceless time tediously deriving engineering data in old-fashioned ways.


Electronic instruments free engineers' time by speeding and simplifying the ordinary—and extra-ordinary—measurements today's engineering requires. Hours, even days, are saved for creativity.

Hewlett-Packard makes 300 different electronic measuring instruments answering

a vast range of needs. One -hp- instrument saves time for many men, yet most -hp- instruments cost far less than just the recruiting of one new engineer.

A letter from you will bring a Hewlett-Packard field engineer to help your technical people simplify and make more productive your Company's engineering effort.

● Hewlett-Packard vacuum tube voltmeters, standard throughout industry, provide new simplicity and extreme accuracy for electrical measurements. -hp- 400H (shown) measures 1/10 millivolts to 300 volts at frequencies 10 to 4,000,000 cycles per second. -hp- voltmeters, \$200 to \$325.

 **world leader in electronic
measuring instruments**



HEWLETT-PACKARD COMPANY

PALO ALTO, CALIFORNIA

Field application engineers throughout the world

FROM START TO FINISH **BUILT BY LURIA**



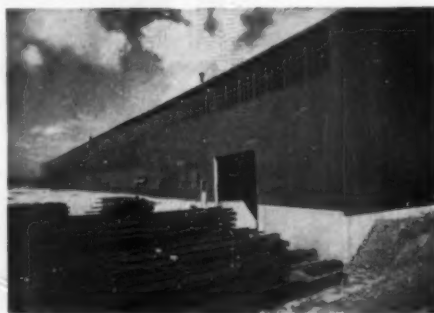
fast, low-cost plant construction gives Youngstown Steel Door Company extra space for expanded production

Making steel sides and doors for freight cars is a job that needs elbow room—and plenty of it. That's the problem that faced top management of the Youngstown Steel Door Company in building a new addition to their plant at Youngstown, Ohio.

Luria Engineering Company was the logical choice. And Luria's reputation for cost-saving methods assured construction at a competitive price.

Luria designs, fabricates and constructs with all responsibility, from start to finish, centered in one competent organization. Standardized designs, structural units and methods of construction, modified to suit individual requirements and often incorporated into highly customized buildings, provide many short cuts that save time and money.

Luria builds anywhere. District offices and representatives in strategically located centers give on-the-spot service. For quick help on your building problems, call Luria in any of the offices listed below.



This 86' x 520' clear-span crane building gives plenty of space for production of freight car sides and doors. "Complete satisfaction with both Luria methods and the building produced," is the report of the Youngstown Steel Door Company.

LURIA ENGINEERING COMPANY

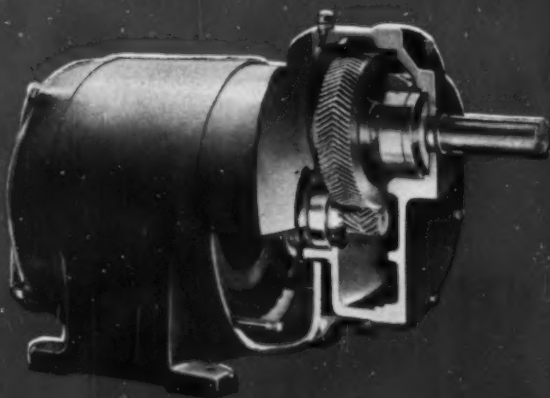
511 FIFTH AVENUE, NEW YORK 17, N. Y.



ENGINEERS • FABRICATORS • CONSTRUCTORS

DISTRICT OFFICES: ATLANTA • PHILADELPHIA • BOSTON • CHICAGO • NEW YORK • WASHINGTON • PITTSBURGH • RICHMOND • DAYTON

PLANTS: BETHLEHEM, PA. • CHICAGO HEIGHTS, ILL.



SINGLE REDUCTION
Parallel Shaft Type

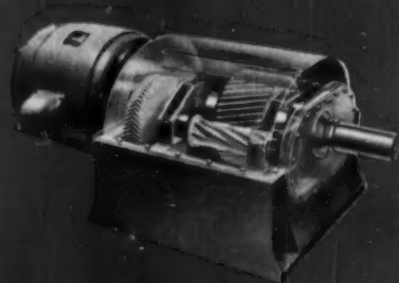


-1st Choice

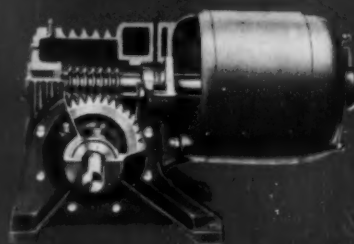
for GEARMOTORS

Because...

- ... With five types of parallel and right angle Gearmotors, Master has the flexibility and choice of design you need for selected output speeds.
- ... With electric motor and gears combined into a compact, integral power unit, you reduce costs and increase efficiency through elimination of belts, couplings, chains, sprockets, external bearings or separate reducers.
- ... Available in sizes from $\frac{1}{8}$ to 125 H.P. You can integrate with the gearmotor electric brakes—3 types of variable speed units and fluid drive in any combination.
- ... And that's why more gearmotors carry the Master name than all other makes combined. Write on your business letterhead for details.



DOUBLE REDUCTION
Parallel Shaft Type



SINGLE REDUCTION
Right Angle Shaft Type

THE MASTER ELECTRIC COMPANY

Dayton 1, Ohio

How high-speed



This Baltimore switching center is a major link in the Olin Mathieson private wire system. Through 140 stations connecting 80 cities, this system now handles some 45,000 messages a month. Plans call for additional facilities and an expected monthly volume of 70,000 messages.

communications

improve your chemical supply

This could be your order coming in on tape to the Baltimore switching center. Just minutes ago you may have called it in to a district sales office. In another few minutes it can be translated into a shipping order within the right Olin Mathieson plant.

This high-speed, private wire communications system, linking 24 divisional offices and plants, puts action into modern chemical marketing. Almost simultaneously all members of your service team can start operating; the traffic man devises the most advantageous shipping, the product manager coordinates production and shipments, and sales service planners balance your orders with inventory control.

When you're planning your chemical requirements, call in an Olin Mathieson representative. Let him show you how you can benefit when high-speed communications are working for you.



MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Potash • Caustic Soda • Chlorine • Ethylene
Diamine • Formaldehyde • Hexamine • Hydrazine and Derivatives • Hypochlorite Products • Methanol
Muriatic Acid • Sodium Nitrate • Nitric Acid • Polyamines • Soda Ash • Sodium Chlorite Products
Sodium Methylate • Sulfate of Alumina • Sulfur (Processed) • Sulfuric Acid
Insecticide and Fungicide Chemicals; Automotive Anti-Freezes and Brake Fluids.

Decentralizing?

Expanding?

The one location...



which will meet all your Plant Site requirements...

if you will just telephone, or write, in confidence to Mr. Lee Davis, Vice President, Area Development Department, American Gas and Electric Company.

YOU COULD make an extended tour of the 48 states in search of that just-right plant site. But without leaving your desk you can call the number above and...

One of American Gas and Electric Co.'s area development specialists will help you in two important ways. First... in co-operation with AGE district managers in the field, he will gather complete information on a wide selection of plant sites. His knowledge and experience enable him to recommend the sites that best suit your company's operations.

Second... he'll introduce you to one of America's fastest growing industrial areas where AGE has served practically every home and business for fifty years—2300 communities in seven states at the crossroads of American industry. In these smaller towns (all but 17 are under 25,000) living is pleasant, uncrowded; ideal for raising families. And labor here is friendly, helpful and eager to see you prosper.

Ask your operator to call New York—COrtlandt 7-5920, for you right now. If you prefer, you may write in confidence to Mr. Lee Davis, Vice President, Area Development, Dept.F-12.

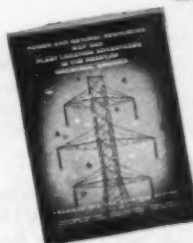


Locate near major markets

This free illustrated brochure tells about the advantages of this 7-state area in the "Heart of Industrial America."

In it you will find everything modern industry needs: skilled labor, low-cost power, abundant resources, complete transportation services, ideal living conditions, next-door suppliers and customers, excellent distribution facilities and favorable tax structures.

For a more detailed description of these and other industry advantages, write Dept. F-12, or free illustrated brochure.



AMERICAN GAS AND ELECTRIC COMPANY

30 Church Street • New York 8, N. Y. • COrtlandt 7-5920

Operating Affiliates

Appalachian Electric Power Company
Indiana & Michigan Electric Company
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Ohio Power Company
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eliminate *waiting-time* irritation

If you've ever waited for a vital paper while mounting minutes played havoc with your good nature, you'll be interested in Safeguard! Engineered by Globe-Wernicke, Safeguard is a time and motion, color-keyed system of filing... so simple to understand anyone can learn the procedure in a matter of minutes. And Safeguard's components (letter or legal-size guides and folders) fit *any* filing drawer or cabinet... no new equipment needed!

Safeguard speeds up filing and finding (papers delivered in a matter of seconds!)... cuts down on errors... lowers clerical costs. Most important, Safeguard keeps management in control... never puts you at the mercy of an improvised system of filing or a changing clerical staff. What's more,

Safeguard suits every size operation... from a one-man office to a king-size corporation. (Five different systems further tailor Safeguard to *your* needs!)

Why not look into this fast, virtually foolproof filing system? Call your Globe-Wernicke dealer* for full details, or write for brochure, Dept. A-A11



*Dealers listed
in yellow pages under
"Office Furniture"



CINCINNATI 12, OHIO

Globe-Wernicke makes business a pleasure!



"**SAFEGUARD** is my choice, because any information or correspondence I need from the files gets to my desk *fast*. 'Out guides' end 'missing papers' too!"




"**SAFEGUARD** is my choice, because it's so simple to follow that it takes me *less time* to do the filing. Safeguard's color-keyed tabs flag instantly just the folder I want."



"**SAFEGUARD** is my choice, because it keeps our files *under control* at all times, and makes it easy to expand our filing operation."

Correct Lubrication in Action ...

\$13,388 saved in 6 months



Vulcanized Rubber and Plastics Company has been engaged for 75 years as a leader in precision molding and extrusion of hard and soft rubber—injection molded thermoplastic, and reinforced plastic parts for major industries and, in addition, is one of the world's largest manufacturers of combs.



SOCONY MOBIL

Leader in Lubrication for over 92 years

in the **Rubber and Plastics Molding Industry**
**on maintenance,
material, man-hours!**

**How the Vulcanized Rubber and Plastics Company made this
substantial saving with the help of Socony Mobil I**

In just six months the Vulcanized Rubber and Plastics Company has saved twice the total value of all its oils and greases purchased during the whole year of 1956! Beginning January, 1957, the company protected their Morrisville, Pennsylvania, plant with a Socony Mobil program of Correct Lubrication.

Plant engineer and Mobil lubrication specialists concentrated all their efforts towards improving efficiency of the plant's 42 hydraulic systems. Hydraulic fluids were standardized . . . filtering schedules set up . . . regular maintenance periods established. Periodic

Mobil laboratory reports helped check oil quality and efficiency of filtration system.

Savings were swift and sizable. Downtime dropped sharply. Hundreds of repair and maintenance man-hours were eliminated . . . material costs cut. In total, \$13,388 saved on the plant's hydraulic systems.

This is Correct Lubrication in Action. The cost-cutting program that devotes Mobil specialists, Mobil facilities, and Mobil's 92 years of lubrication experience to assure utmost protection and full service life from every Mobil product.

SUMMARY OF SAVINGS ACHIEVED THROUGH CORRECT LUBRICATION

- * **\$1,628 saved on hydraulic oils**—Following Mobil recommendations, plant replaced eight different hydraulic oils with only two Mobil products. This improved dispensing control . . . simplified reclamation . . . cut application time.
- * **\$2,400 saved on hydraulic system maintenance**—Before Mobil program, maintenance on hydraulic pumps, screens and valves in the injection molding department required two men on full-time basis. Program has proved so effective that equipment today requires only periodic inspection.
- * **\$100 per month saved on repair parts**—Prior to Mobil program, shafts on Vane-type pumps were snapping due to contaminants wedging into close-tolerance clearances. Cleaner oil and regular application under Mobil program eliminated problem . . . cut repair parts cost \$600 in 6 months.
- * **\$8,760 recovered on press room operation**—Compared to same period in 1956, savings made in Vulcanized Rubber and Plastics Company's Press Room amounted to: \$3,960 saved through elimination of downtime. \$4,800 cut by reducing maintenance man-hours. Total—\$8,760 saved in six months.

Correct Lubrication

**A proved program to reduce
manufacturing costs**

SOCONY MOBIL OIL COMPANY, INC., and Affiliates: MAGNOLIA PETROLEUM CO., GENERAL PETROLEUM CORP., MOBIL OVERSEAS OIL CO., INC.

WAGNER TRANSFORMERS... THE CHOICE OF LEADERS IN INDUSTRY



Nation's most modern air terminal served by power from Wagner Transformers!

The "Spirit of St. Louis" is reborn in the city's newest symbol of the air age—the dramatic new terminal at Lambert-St. Louis Municipal Airport. Built at a cost of \$7,728,000 and dedicated in 1956, it's the most modern in the nation.

Electric power for this terminal is distributed by five secondary unit substations, rated from 300 to 1500 kva. These were manufactured by Nelson Electric Company and equipped with safe, dependable Wagner dry-type Transformers. Wagner dry-type Transformers are carefully engineered to provide an uninterrupted flow of power—built to stand up under rigor-

ous 24 hours a day schedules. Wagner pioneered in the development of dry-type load center transformers, and the Wagner design is known for its great electrical stamina and mechanical strength.

Wagner dry-type unit substation transformers can answer your power needs just as they do at Lambert-St. Louis Municipal Airport. They are "Predesigned"—coordinated with the specifications of unit substation builders to save you job engineering, time, and cost. Consult the nearest of our 32 branch offices, or write for Bulletins TU-205 and TU-214 for full information.



This is the Nelson main substation at the St. Louis Airport. It is equipped with a 1500 kva Wagner Dry-Type Transformer.



WT57-9

...to help America LIVE BETTER—Electrically

Wagner Electric Corporation
6460 Plymouth Ave., St. Louis 14, Mo., U.S.A.



ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES • AUTOMOTIVE BRAKE SYSTEMS—AIR AND HYDRAULIC

Short cuts with Recordak Microfilming

Latest reports on how this low-cost photographic process is simplifying routines for more than 100 different types of business . . . thousands of concerns



KEEPS TRACK OF MILLIONS DAILY

NEW YORK, N. Y.

The operations of hundreds of clerks in Merrill Lynch, Pierce, Fenner and Beane's 116 offices are backed up by Recordak Microfilming in the Home Office cashier's department.

Outgoing stock and bond certificates worth millions—along with the related charge-out orders—are whisked through a Recordak Microfilmer before being forwarded to customers and other brokers. (Hundreds of front-and-back pictures are made in a minute. Films are developed by local Recordak Processing Station . . . are ready for use the next morning.)

Thus, should a "common" stock certificate ever be charged out as "preferred," the error can be spotted in a Recordak Film Reader in minutes—saving days or weeks of tracing, and sparing customers considerable inconvenience.



TAKES THE PRESS OUT OF PAPERWORK

ROCHESTER, N. Y.

Lilac Laundry and Dry Cleaning saves more than \$5,000 per year by microfilming the tickets made out each day by its 16 drivers and clerks in 5 stores.

These pictures replace a ledger record—with a 5-part written description of each ticket—that took all day to compile. Takes about 15 minutes now to make a photographically accurate record of all tickets in route and store sequence.

Lilac also did away with carbon copies by microfilming its charge account statements. Saves on accounts receivable insurance, too.



URNS MILKMAN'S RECORDS INTO BILLS

McKEESPORT, PA.

The Menzie Dairy cuts billing costs in half by microfilming its drivers' route sheets and sending them out to customers as their monthly bills.

This eliminates days of tedious billing and the need for costly posting machines and files. And it gives the customer the actual record which the milkman compiled from day to day, all but ending questions about charges.

The Menzie Dairy uses a Recordak Reliant Microfilmer (illustrated below) which takes pictures of 40 route sheets for one cent . . . and has a unique high-speed automatic feeder that prevents "double feeding."

Note: Recordak has a complete line of microfilmers to match all needs—priced as low as \$550. Low rental plan, too.

VALUABLE FREE BOOKLET

It'll pay you to read "Short Cuts that Save Millions." Chances are Recordak Microfilming is now simplifying routines just like yours! Inquiries are invited—no obligation whatsoever!

Price quoted subject to change without notice



"Recordak" is a trademark

RECORDAK

(Subsidiary of Eastman Kodak Company)

originator of modern microfilming—
and its application to business



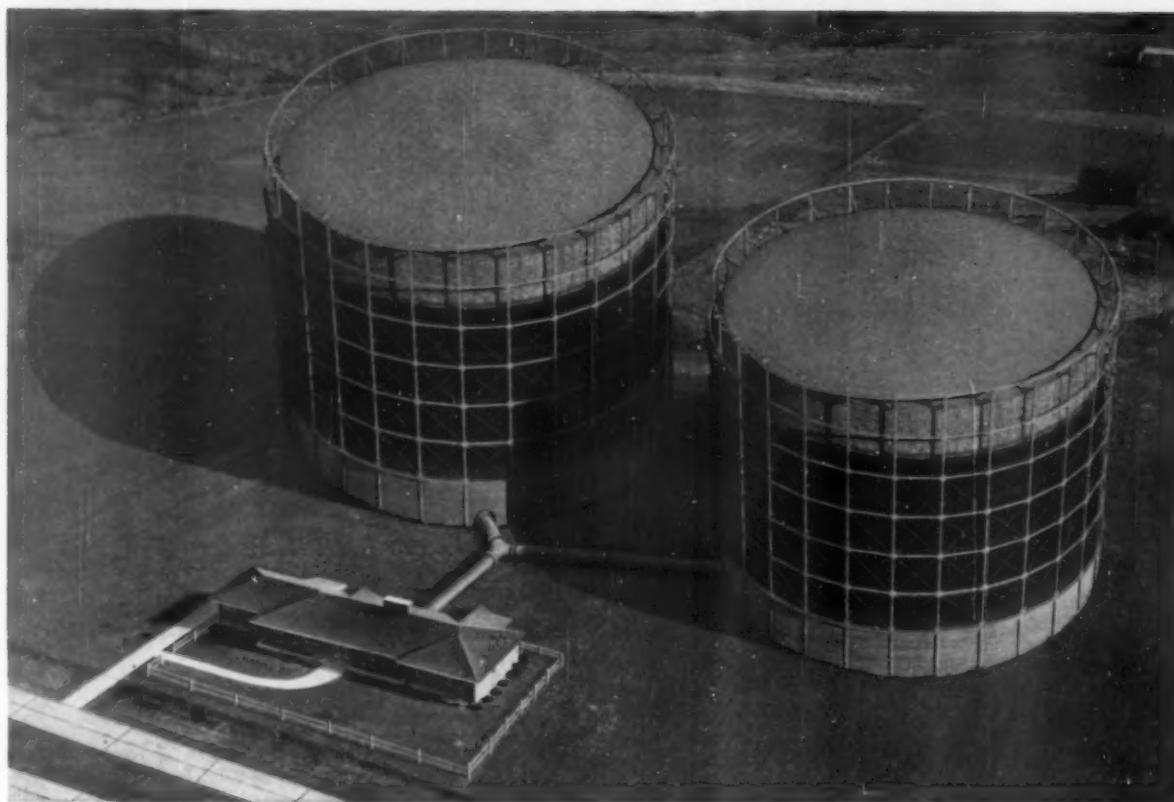
MAIL COUPON TODAY

RECORDAK CORPORATION
415 Madison Avenue, New York 17, N. Y. A-11
Please send free copy of "Short Cuts that Save Millions."

Name _____ Position _____
Company _____
Street _____
City _____ State _____

STEEL MAKES NEWS AT GRANITE CITY!

Interesting, unusual
facts about
Mid-America's
dependable source
of flat-rolled steel



**Granite City Steel burns
enough gas every day
to heat an average home
for 147 years!**

To heat its soaking pits, furnaces and other equipment, Granite City Steel Company burns about 22 million cubic feet of gas a day, about the same amount as stored in both tanks shown above. Modern steelmaking also requires vast quantities of water. In fact, 38,000 gallons are used in producing a *single* ton of finished sheet steel. The mill now uses 112 *million* gallons of water every 24 hours, or more than half the daily summertime water consumption of the entire city of St. Louis.



**Hot-rolled steel produced by the mill
each month outweighs 160 barges!**

A shiny new barge slips down the ways and hits the water. Made of tough hot-rolled steel plates, this giant weighs nearly 270 tons—yet that's only about 1/160th the weight of all hot-rolled sheets and plates turned out each month by Granite City Steel. Where do they all go? Into barges, yes, and also into pipe, auto frames, storage tanks, railroad cars and many other useful products for industry.

GRANITE CITY STEEL CO.

Granite City, Illinois

SALES OFFICES:

Dallas • Memphis • Kansas City • Minneapolis
St. Louis • Houston • Tulsa

SUBSIDIARY—GRANCO STEEL PRODUCTS CO.



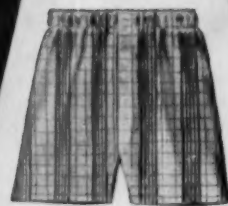
Can you spot a product NOT sold in AVISCO cellophane?



TOBACCO



BAKED GOODS



SOFT GOODS



PRODUCE



HARDWARE



MEATS



CANDY



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Cellophane's versatility is boundless. When a package must be grease-proof . . . or water-resistant . . . air-tight . . . moisture-proof . . . beautifully printed, there's an AVISCO cellophane to fill the bill. Moreover, with heat-sealing cellophane, high-speed packaging machines

can wrap and seal thousands of packages an hour.

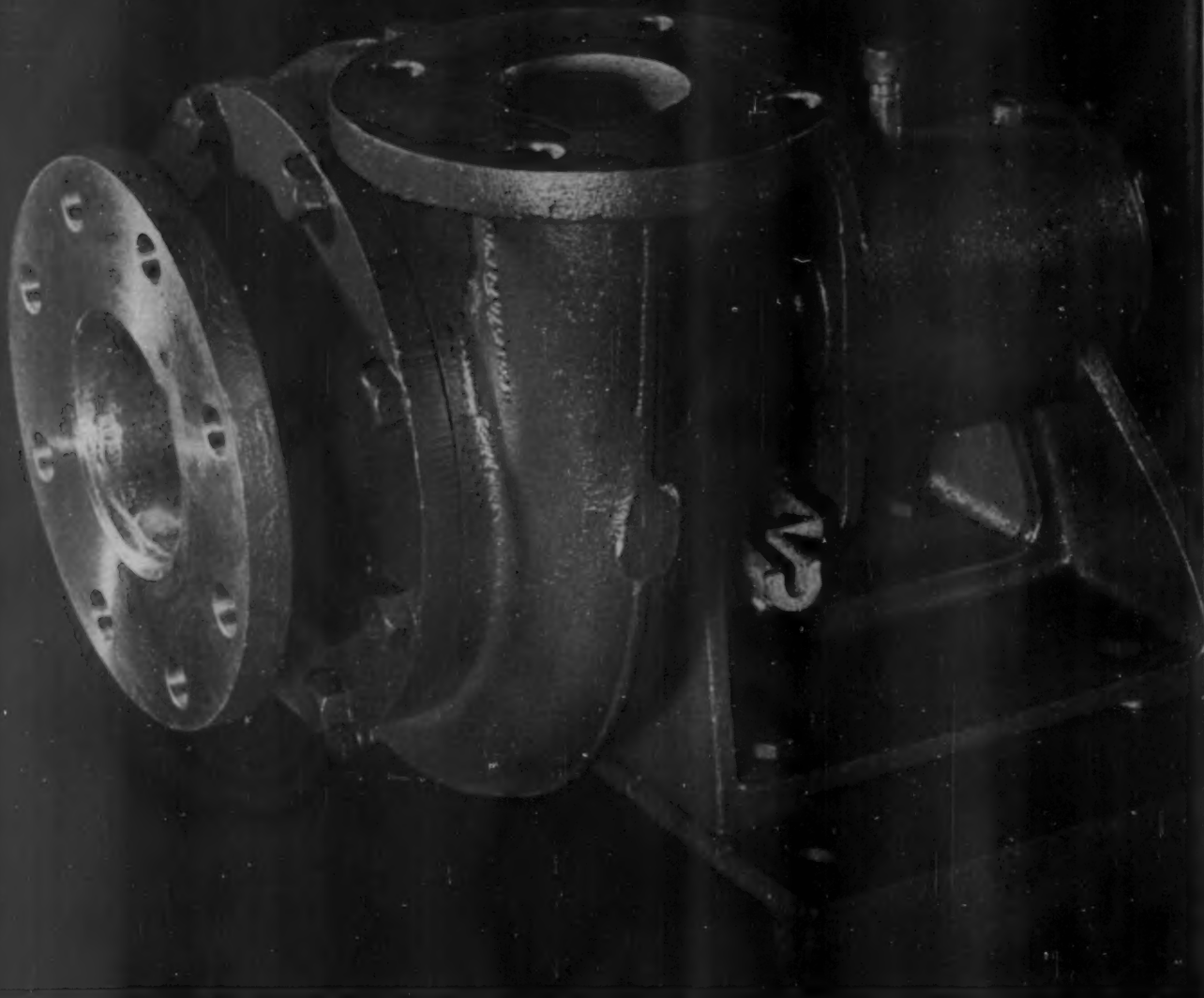
NO OTHER TRANSPARENT MATERIAL PERFORMS SO PERFECTLY ON HIGH-SPEED PACKAGING MACHINERY.

It's difficult to find *any* kind of packaged product that can't be wrapped better, and sold faster, in AVISCO cellophane.

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HOW TO BUY A \$750

When you need a "special" pump, Worthington's SESC (Standard End Suction Centrifugal) line will often prove the low-cost answer.

For example, the chart above shows specifications for 21 different pumps, with a variety of materials of construction, which would ordinarily involve manufacture of special pumps. However, because all of these materials are available from the SESC line, the pumps can be bought at big savings.

The secret of Worthington's ability to give you many normally special pumps at standard prices is the flexibility of the SESC line. *Parts* have been standardized,

but not *pumps*. As a result, you can literally "custom-build" your pump to get exactly the right features to meet your requirements.

70,480 COMBINATIONS TO CHOOSE FROM. You have a choice, for example, of four materials of construction—iron, steel, bronze, Worthite* and combinations of these. You have a choice of five types of liquid ends and five different drives. You can choose packed stuffing box or mechanical seal operation. In all, there are 70,480 combinations—all built from standard, stocked parts and ready for prompt delivery at competitive prices.

*A high nickel, high-chromium, low-carbon alloy steel. Trademark Reg. U. S. Pat. Off.

ENGINEERING CORPORATION DATA SUMMARY

Job No. 3-5
Date 6-7-67
By ENC

Pumping Temp. F	Sp. Gr. at P.T.	Diff. Head Ft.	Actual RPM	MATERIAL SPECIFICATIONS					Remarks
				Casing	Impeller	Wearing Rings	Shut Off	Shut Speed	
68	1.0	63	6	BRONZE	BRONZE	BRONZE	STEEL	BRONZE	
70	1.1	17	10	SS	SS	SS	SS	SS	
212	1.0	230	5	CI	BRONZE	BRONZE	STEEL	11-13Cr	
204	0.98	123	7	SS	SS	SS	SS	SS	MECH SEAL ①
204	0.98	15	7	SS	SS	SS	SS	SS	
265	0.75	66	6	STEEL	CI	CI	STEEL	11-13Cr	
251	0.96	49	17	CI	BRONZE	BRONZE	STEEL	BRONZE	MECH SEAL ①
20	1.10	130	10	CI	CI	CI	STEEL	11-13Cr	MECH SEAL ①
20	1.10	130	10	CI	CI	CI	STEEL	11-13Cr	
20	1.10	135	10	CI	CI	CI	STEEL	11-13Cr	BRONZE ON FL. 60
110	1.01	39	5	BRONZE	SS		SS	SS	
28	1.0	77	3	BRONZE	BRONZE	BRONZE	STEEL	STEEL	
83	0.98	88	8	CI	CI	CI	SS	SS	
156	0.71	217	11	SS	SS	SS	SS	SS	STEEL 11-13Cr
225	0.68	76	6	STEEL	CI	CI	CI	STEEL	11-13Cr
110	0.87	83	16	CI	CI	CI	STEEL	STEEL	
	0.73	304	9	STEEL	CI	CI	CI	STEEL	BRONZE MECH
		52	7.5	CI	BRONZE	BRONZE	STEEL	BRONZE	
		18	12	SS	SS	SS	SS	SS	
		6		CI	CI	CI	CI	SS	SS
				CI	CI	CI	CI	SS	SS

PUMP FOR \$300!

STANDARDIZATION PAYS OFF LATER. After you have installed an SESC pump, you benefit again from Worthington's broad standardization program. Since all pumps in the line are built from interchangeable parts, your spare parts inventory can be cut as much as 50%. Should repairs or conversions become necessary, parts interchangeability can often mean reduced downtime.

The complete SESC line consists of six separate types of pumps, all suitable for either motor, turbine or belt drive. Ratings range up to 2,700 GPM and 550 ft. head. If you'd like to know more, write for Bulletin W-300-B4 Worthington Corporation, Harrison, N. J. SP. 7, 2



CUTS MAINTENANCE
If you know one SESC pump, you know them all. From the smallest to the largest the entire line is built to the same basic design. Maintenance men quickly become familiar with its construction details.

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helped us speed up our integrated order-billing and save \$6,600 a year"

Robert C. McPeak, Sales Operating Manager B.F. Goodrich Chemical Company

"The experience and 'know-how' of a DITTO systems specialist put our I.D.P. Order-Invoice System on its present highly efficient basis. This system combines the speed, accuracy, and economy of DITTO One-Writing with the automatic transmission of data by

wire to our plants and warehouses. The yearly saving is \$6,600. Of equal importance is the accuracy and close control of orders and billing; and the speeding-up of every phase of our procedure—vital in our business, where good customer service means everything."

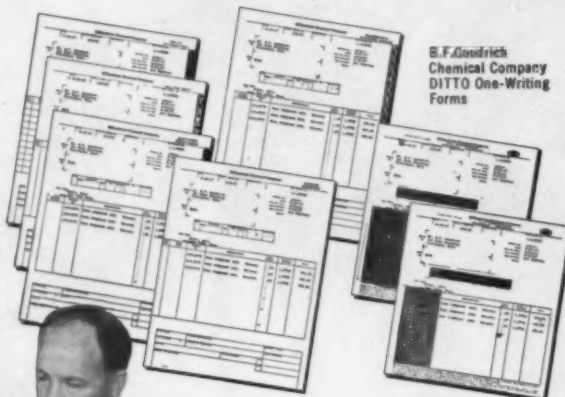
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B.F. Goodrich Chemical Company Sales Operating Manager, Robert C. McPeak; Manager Office Services, Robert J. Uebbing; and Supervisor of Billing Eugene P. Eakin, discuss DITTO I.D.P. One-Writing Order Invoice System with Joseph Meagher, DITTO Branch Manager.



DITTO, Inc., 6820 McCormick Road, Chicago 45, Illinois

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HOW

Westinghouse

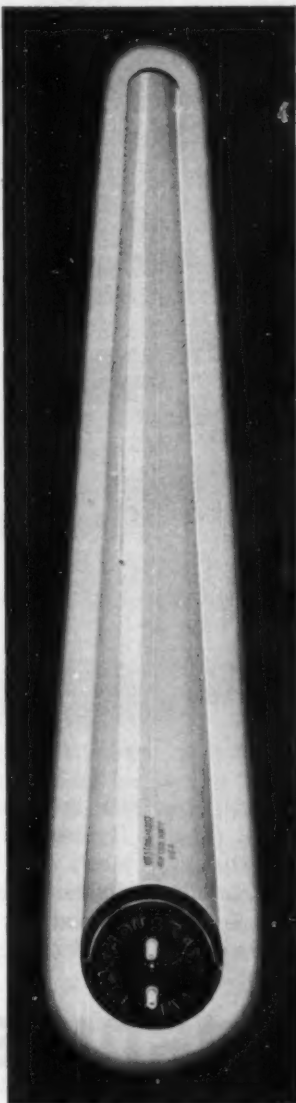
JOB-TAILORED FLUORESCENT LAMPS MEET YOUR LIGHTING NEEDS

...all with ULTRALUME™ High-Intensity Phosphors • MORE LUMENS PER WATT...
more light for your dollar • UNIFORM END-TO-END LIGHT • PERFECT COLOR
MATCH...ALWAYS • MAXIMUM OUTPUT MAINTAINED THROUGHOUT LONG LIFE

1. New **SUPER-HI** Fluorescent lamps produce more than twice the light per foot. Designed primarily for high bay (20 feet or higher) industrial and outdoor lighting, a new line of extra high light output fluorescent lamps produce more than twice as much light output per foot as standard fluorescent lamps. The new SUPER-HI lamps permit extremely high energy loading of electrodes, the arc stream and the phosphor. This gives you high light output with new economy at good efficiency and long life. SUPER-HI lamps are light in weight, convenient to handle and provide a light source subject to the same easy optical control as with present standard T12 lamps, but with over twice the light output. Available in 105, 155, and 205 watts, 4, 6 and 8 ft. The lamps have a rated average useful life of 5000 hours, deliver 6000 to 13,000 initial lumens.

2. High Output Rapid Start lamps give more than 50% more light than regular type. Designed primarily for medium-high bay (15 to 20 feet) industrial and outdoor lighting, four new sizes of Westinghouse high output, rapid start fluorescent lamps can produce over 50% more light than comparable sizes of regular lamps and offer new economy and effectiveness to fluorescent lighting. These lamps provide increased lighting levels, make installations with adequate footcandle values of deluxe color light more practical, and improve the economy and practicability of fluorescent lighting at higher mountings and at lower ambient temperatures.

These lamps are available in 24", 48", 72" and 96" T12 design for general indoor use and for outdoor service where retention of light output at low temperatures is essential. The 72" T12 is recommended for street lighting.



3. Reflector-Fluorescent lamps produce 60% more directed light. For use where external reflectors are difficult or impractical to use, or where dirt deposit cuts lighting effectiveness, these Westinghouse Reflector-Fluorescent lamps provide a directional light distribution which helps put the light where you want it. This is accomplished by a built-in reflecting surface, extending the length of the lamp on the inside of the tube, which redirects about 60% extra light out the other side. Westinghouse Reflector-Fluorescent lamps are recommended for use in coves, showcases and other locations where space is limited. Indirect lighting effects may also be obtained by aiming the lamps toward the ceiling.

They also solve special lighting problems including temporary lighting for construction projects, displays, and exhibits.

Westinghouse Reflector-Fluorescent lamps are available in 40 watt rapid start, 48" and 96" T12 slimline types.

4. Beauty Tone™ Home-line Fluorescent lamps with warm white deluxe color. The same new Westinghouse "Beauty Tone Home-line" lamps which are revolutionizing home lighting by providing warm white deluxe illumination are also ideal for offices, stores and wherever "friendly" color of light is wanted to flatter complexion, enhance the natural color of furnishings, decorations, and displays, and blend well with incandescent lighting.

There's a network of Westinghouse distributors ready to serve you. Call your nearest Westinghouse Supplier for a free Job-Tailored Survey of your lighting requirements. Or write Westinghouse Lamp Division, Bloomfield, N. J.

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New facts on inventory costs revealed by IRON AGE survey

ning program: A steel pin is in age inventory x fixed cost of 15

What it Costs To Carry Inventory

A survey of eight plants shows that for every \$100 worth of materials bought, the average yearly inventorying cost is \$19.37.

This average carrying charge is largely accounted for by these costs:

✓ Interest on capital invested	→ \$3.5 - 7
✓ Taxes	→ 0.5 - 2.55
✓ Insurance	→ 0.2 - 1.0
✓ Warehousing	→ 0.2 - 2.25
✓ Handling	→ 2.0 - 4.0
✓ Clerical and inventory-taking	→ 1.0 - ?
✓ Obsolescence	→ 3.85-10.0
✓ Physical deterioration, pilferage	→ 1.5 - 5.0

83

Chart courtesy The Iron Age.

Here's help on steel inventory costs . . .

In these days when working capital is tight and interest rates are high, it's especially important not to let inventory take dollars you can use elsewhere. You can save money on steel inventory costs by letting Ryerson carry

the inventory for you. It's already here, at Ryerson—in the nation's largest stocks of steel. And Ryerson has the organization to deliver what you want when you want it. For immediate steel service, call the Ryerson plant near you.



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BUSINESS OUTLOOK

BUSINESS WEEK

NOV. 16, 1957



Trends in the job market will have to be watched even more closely than usual in coming months for their effects on:

- The flow of personal income.
- The spending ideas of consumers.
- The level of retail trade.
- The tone of negotiations on wages (page 155).

If you could count on things running along as smoothly as during the 1953-54 recession, there wouldn't be much to it.

Then, employment sagged a little over 1½-million or about 2½%. This (along with growth in the labor force) resulted in a rise of about 2½-million or 200% in unemployment.

Consumer spending, lagging a little in 1953's fourth quarter, regained stride quickly to hit new records in each succeeding quarter.

Even a pessimistic view of next summer's unemployment would hardly set the rise at more than 100%. But we're starting from about 2½-million this time (substantially higher than the 1953 low), so that the absolute total in 1958 might exceed 1954 even on a smaller percentage rise.

But if we should have 5-million unemployed next summer, don't compare it with the high of 3.7-million in 1954. Figures now run higher because of a much tighter definition of who is a jobholder and who is not.

—•—

Conditions in the job market, up to now, might best be described as sluggish rather than actually discouraging. Unemployment hasn't risen, and the over-all level of employment remains high.

Work on farms and in nonmanufacturing lines took up the slack pretty well until late summer, keeping the totals above 1956.

Lately, however, year-to-year gains have just about disappeared.

Most of the worries over employment and the level of consumer income arise from fewer factory workers and their shortened work week.

These trends have been in evidence all year. But they have become especially striking since summer by worsening at a time of year when they should be showing distinct improvement.

Manufacturing employment last month was about 150,000 below its August level. A year ago, during the same interval, the total went up by about 200,000. The result is a total 400,000 below a year ago.

This year-to-year drop, incidentally, is mostly in durable goods.

The average number of hours worked in October, partly due to the prevalence of flu, was 39½. That's the poorest in over three years. A year ago, the average was running an hour a week better.

Dig behind the actual figures on employment and unemployment, and you'll come up with another possible danger signal:

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

NOV. 16, 1957

Growth of the labor force this year has been subnormal (even in these times of quite small year-to-year additions).

This often means that people aren't looking for jobs because attractive work is scarce. Sometimes this deters youths from entering the labor market, often it causes oldsters to quit the work force.

Either way, it probably denotes less glitter on the boom.

—•—

You're already beginning to hear some unhappy talk about the outlook for holiday trade. One Wall Street analyst this week even went so far as to suggest that sales might trail a year ago.

If you go by department stores' results, you're probably taking a dim view of things. For two months, they've shown minus signs.

However, if you take the broader Dept. of Commerce figures on all retail outlets, things aren't so bad. Their September gain, on revised figures, was nearly 7%. And, for October, they topped 1956 by 4%.

Fault can be found, however, even with October's \$16.6-billion figure for sales of all retail stores. This total (which is adjusted for seasonal characteristics and shopping days) marked the third consecutive monthly decline. In fact, it was the poorest month since last April.

Moreover, October's 4% was the slimmest year-to-year gain of 1957.

Large consumer purchases at food stores (at prices that average 3% or 4% higher than a year ago) seem to be the really big factor right now in retail gains over a year ago.

October was the second highest month on record with \$4.1-billion of food sales—a gain of about 10% over a year ago.

Two types of retailing—stores handling furniture and appliances and those dealing in lumber, hardware, and allied products—are currently making the poorest showing. They ran behind 1956 in October.

On the other hand, drugstores had a gain of about 10% in September and double that for October—an influenza-induced boomlet. And service stations in October about matched September's 7% improvement.

—•—

Consumer expenditures on housing (including alterations and additions) should pull even with year-earlier levels by the start of 1958. But that leveling out doesn't guarantee any plus signs at an early date.

Declines have been getting progressively smaller all this year. The average was 7% below 1956 for the first half. By October, it was only 3%.

—•—

Industrial construction, whose boom went soaring from mid-1954 through the end of 1956, very definitely has cooled off. By midyear, gains over a year ago had disappeared. Since then, we have been posting minus figures each month, and the shortfall had grown to 8% by October.

Construction of office buildings and warehouses, for its part, still is topping 1956 by 10% or better. But even here, tight money choked off a few new projects late in 1957, dimming 1958 prospects.



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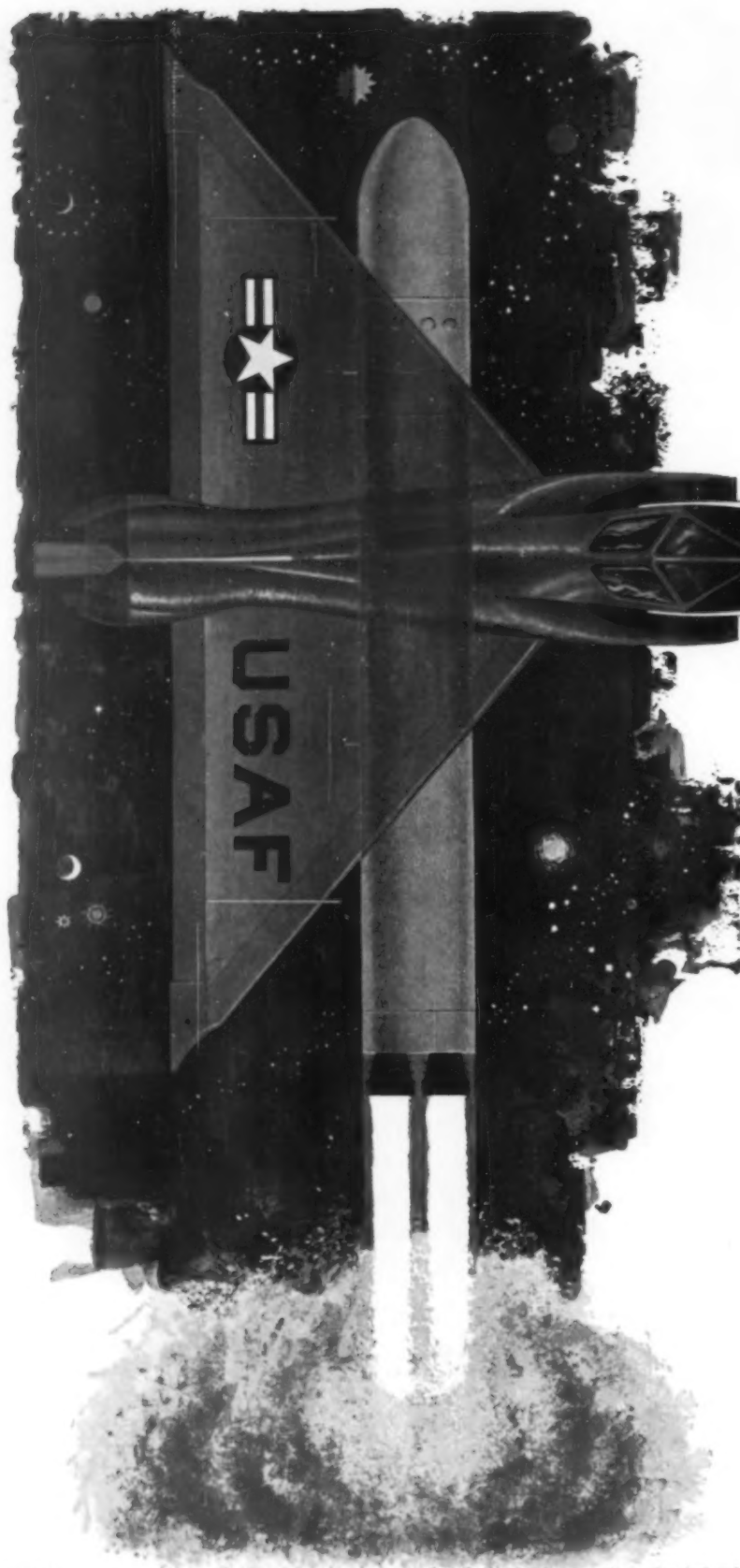
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**something of
your future
was on
our minds
yesterday**

Who can gauge the portent of things like jet and rocket flight, gas turbines and guided missiles? Electronic computers and automation, television and radar? Fission products and atomic power?

Already some of them are giant industries. They affect your personal life, your business planning, your entire world outlook. Yet each would still be an improbable dream except for the electrical alloys, special steels, and other corrosion and heat-resistant and special-property metals (such as titanium and zirconium) that will do today what could not be done yesterday.

It is Allegheny Ludlum's continuing job to pioneer, research and perfect such metals—and more important, make them available in the commercial shapes, forms and sizes that you need.

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**ALLEGHENY
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PIONEERING on the
Horizons of Steel



● The President this week set the nation on a new course.

● Prospect is for a considerable—although still to be determined—rise in military spending, cuts in civilian programs.

● There'll be a new emphasis on science in the White House, a new urgency behind missiles in the Pentagon.

● Longer run, sweeping programs will bolster the U.S. effort in education and in basic research. It's all part of a drive . . .



To Meet the Russian Challenge

Pres. Eisenhower, reflecting a sense of national urgency that finally grew overpowering, this week committed the nation to heavy new military expenditures in the arms race with Russia.

The abrupt turnaround in Administration policy came Wednesday night, 41 days after the Soviet launched the first of its space-traveling Sputniks, when Eisenhower spoke to the nation from Oklahoma City in the second of his series of "reassurance" speeches.

This is the picture he painted:

- Military spending will go up by an unspecified but "very considerable" amount.

- To offset this, the Administration will demand that Congress abandon or sharply reduce some civilian spending

programs that may be socially or politically desirable, but not absolutely necessary.

- The balanced budget, for the short term, is no longer an absolute must.

This is the prospect: Military spending this fiscal year will be about \$38.6-billion. Next fiscal year—the one for which Eisenhower and his advisers are drafting plans now—it may rise to \$40-billion or \$41-billion.

And this is the problem: How to pare non-security expenditures to absorb some of that rise, staying as close as possible to the entire budget's spending total of about \$72-billion.

Said Eisenhower, "By whatever amount savings fail to equal the addi-

tional costs of security, our total expenditures will go up. Our people will rightly demand it. They will not sacrifice security worshipping a balanced budget."

- **New Tone**—Eisenhower's Oklahoma City speech was graver in tone than his first in the series, delivered from Washington last week. More than merely reassuring this nation about its military and economic strength, Eisenhower was also telling the Soviet leaders not to let exhilaration about their Sputnik propaganda coup lead them into heady notions or overt actions.

"It will be some time before either we or the Soviet forces will have a long-range missile capability equal to even a small fraction of the total de-

structive power of our present bomber force," he said.

Thus, in a week when our Strategic Air Command was showing muscle with long-distance record speed flights to South America and the Philippines, Eisenhower set the stage for his new policy of more military spending.

I. The Military Buildup

Late last week, Sen. Styles Bridges of New Hampshire, the ranking Senate Republican, came out of a White House breakfast conference talking about the possibility of "another \$1-billion or \$2-billion" in new military spending.

In the wake of Eisenhower's Oklahoma City speech, some Administration sources called Bridges' estimate "as good as any around right now."

So far as he outlined it, this is what Eisenhower had in mind:

- Dispersal of the Strategic Air Command to additional bases at a rate that "ought now to be speeded up."

- Pouring more money into the far-flung networks of radar warning outposts—in the form of "standby combat crews, more runways, more fueling stations, and more housing."

- Mutual defense overseas—"foreign aid is an important part of our nation's security, and must not be cut. The same is true of economic aid for our allies." Eisenhower laid it on the line again that foreign aid is cheap national security spending, and that Congress can't safely cut a billion dollars from the money requests he makes, as it did this year.

- Better pay for the military services. "Justice demands this," Eisenhower said, "but also compelling is the factor of efficiency . . . we cannot obtain and retain the necessary level of technical proficiency unless officers and men, in sufficient numbers, will make the armed services their career."

One of his biggest problems—reorganizing the country's research and missile development effort—Eisenhower had handled in his TV speech from Washington last week by (1) appointing Dr. James Killian, president of Massachusetts Institute of Technology, to be his Special Assistant for Science Technology, and (2) giving William M. Holaday new authority as Special Assistant to the Secretary of Defense for Missiles.

- **No Crash Program**—This week, Eisenhower referred again to critics' demands that the U.S. act quickly with a crash program to counter the Russian's Sputnik successes and their apparent lead in development of long-range missiles.

He made plain that neither he nor his advisers are buying the crash program pleas. "The technicians tell me," he said, "that development of the long-

range ballistic missile cannot be markedly accelerated by expenditure of more money."

But he did promise that additional sums will be made available for the program—if and when the need is shown.

Eisenhower also pledged "greater concentration on basic research," calling it one of the prime long-term concerns. And only five hours before Eisenhower went on the air in Oklahoma City, the Pentagon's science director, Dr. Orr Reynolds, told reporters what this means: **Military spending on basic research may be doubled next year, raised to some \$180-million.** Spending for military research has been running \$80-million to \$90-million a year since 1951.

II. Civil Impact

Above all else, the President has virtually wiped out the last lingering hopes for a tax cut next year.

Washington sources offered quick reassurance, however, to the obvious counter-question: Will a tax increase now be needed? The answer, they say, is almost certainly "no."

What is most likely is that early in the coming session of Congress, the Administration will press for some rise in the \$275-billion debt ceiling—perhaps even a temporary one to tide the government over until the March tax remittances reach Washington.

Eisenhower did not abandon hope of a balanced budget, but clearly it is—temporarily, at least—a secondary matter. He pushed part of the problem squarely onto Congress, where his critics have been most vocal.

"Some programs, while desirable, are not absolutely essential . . . while some savings may still be squeezed out through the wringer method, savings of the kind we need can come about only through cutting out or deferring entire categories of activity," he said. And he added this challenge:

"This will be one of the hardest and most distasteful tasks that the coming session of Congress must face."

Eisenhower didn't mention them by name, but some obvious candidates for either the "wringer" or outright deferral are the "porkbarrel" civil works projects so dear to congressmen's hearts; the multi-billion-dollar agricultural conservation payments to farmers for building dams and improving their land; the federal school lunch program; urban renewal, and so forth (page 55).

- **"Keep Off"**—But Eisenhower bluntly warned congressmen to keep hands off foreign aid—their number one target when economy fever swept the Capitol last session.

He outlined one brand-new area for possible federal spending on a minor scale—in strengthening scientific educa-

tion. He said this must be a cooperative venture between federal and local governments. But he added that the country needs: (1) a system of nationwide testing of high school students; (2) a system of "incentives for high-aptitude students to pursue scientific or professional studies;" (3) a program to stimulate "good-quality teaching of mathematics and science;" (4) more laboratory facilities; and (5) other measures, including "fellowships, to increase the output of qualified teachers."

III. The Critics

Into this picture, the Democratic-controlled Congress is leaping with the will of politicians trying to be statesmen and to chop vigorously away at their political opponents at the same time.

Sen. Lyndon B. Johnson (D-Tex.) has his Senate preparedness subcommittee preparing to dig into the facts: "We want to find out not who is wrong, but what is wrong."

However, there are hints that the committee will call in two top Eisenhower men as nominees for whipping boys: ex-Treasury Secy. Humphrey—on the theory that he was the strong man of the Cabinet who really called the tunes on the military budget—and ex-Defense Secy. Charles E. Wilson, whose dim views on the merits of research, including space projects, are rather prominently on the record.

- **Committee's Questions**—A staff-headed by Edwin L. Weisl, 60, of the New York law firm of Simpson, Bartlett & Thatcher—is shooting for hearings to begin Nov. 25. Senators will hear practically all the Administration's brass—military, budgetary, and scientific—in an attempt to answer two questions: (1) how did we get where we are? (2) what do we do about it now?

The committee has one problem, though, that may prevent it from letting the public know our real strengths and weaknesses compared with Russia's. That problem is security. As things shape up now, Johnson can't hold completely open hearings, for fear of spreading top secrets on the record. So the plan is to take some testimony in public, some in secret session.

IV. The Budget

For the budget bookkeepers the next three weeks promise to be among the most hectic in their memory. While Eisenhower publicly gave a green light to the military and research agencies, he told the non-defense agencies to prepare for hard times.

Just before Eisenhower's Wednesday night speech, Pentagon budgeteers—

who spend more than all other federal agencies put together—delivered to the President preliminary 1959 budget figures. The first draft called for \$38-billion in new appropriations to sustain a \$38-billion-plus level of spending. Even before Eisenhower spoke Pentagon officials knew they were going to be able to spend more than the target they had been told to hit.

• **Long Lead**—There is no doubt now that when the figure for the Defense Dept. is finally fixed, by Dec. 23, the money requests will be considerably higher than \$38-billion—perhaps as high as \$40-billion. Actual spending for fiscal 1959 needn't go up that high: It takes time, sometimes a year or more after Congress votes the money, for this "obligational authority" to become an actual expenditure. Planes, missiles, and other complex hardware have a long lead time. Orders placed today may cover deliveries over a period of years.

However, it is easy to see that if the proposals for a military pay increase and for special pay increases for military scientists and technicians are adopted, another billion could be added immediately to the Pentagon's actual spending. To that you can add more—for increased spending for research and development, stepped-up deliveries of existing missiles, and the like, that would actually show in fiscal 1959 spending.

• **Early Cuts**—The spending and appropriation proposals of the various uniformed services turned in just before the President's Wednesday speech to Asst. Defense Secy. (Comptroller) W. J. McNeil first totaled \$41-billion. McNeil, with Secy. McElroy's approval, cut these plans down to \$38-billion in order to comply with the then White House policy line.

In trimming the estimates, McNeil and his budget men:

- Eliminated new production money for a nuclear-powered bomber;
- Eliminated new money for the so-called chemical bomber—a manned plane whose engines would be fueled by boron or other chemicals;
- Eliminated new money for long-range supersonic interceptor planes;
- Eliminated funds for buying of jet planes for Army observation;
- Eliminated funds for one of the competing Army-Air Force air surveillance and data processing systems for control of planes and missiles in tactical combat areas.

Now these—and a lot of other programs—are going to be reviewed. Certainly, any program that is tied to defense against thermonuclear warfare is in line to get most, if not all, of what the directors think they can profitably spend.

Missile spending is bound to rise.

Even before Eisenhower spoke, an increase of some \$750-million was expected, raising spending on such hardware in fiscal 1959 to around \$3.2-billion. Now it's sure to go higher.

• **More Questions**—The decisions on many military spending proposals are still to be made. Among them:

• How many Convair B-58 medium bombers should be ordered? (This is the plane that Eisenhower gave his blessing to in his first TV speech.) Thirteen B-58s are already on hand or in production; 18 more are soon to be ordered under this year's budget.

• How many more nuclear-powered aircraft carriers and submarines to produce?

The President is expected to iron these and scores of similar spending decisions at a National Security Council meeting set for next Friday, Nov. 22.

V. The New Assistant

In the furor that followed the speech in which Eisenhower turned around on military spending, the country almost lost sight of Dr. Killian, the man whose appointment to a new White House job was the big news of Eisenhower's first speech.

• **Pentagon Fears**—There are signs that the Pentagon is uneasy that its direct control over missile development could be diminished—if Killian takes it upon himself to do so. Some military missile experts groan that Killian's appointment just adds another layer of coordination to what is already an "over-coordinated" chain of missile command.

As the situation stands now, Killian will have no operating control over the missile budget, nor will he have his hands in missile work full time. On the ballistic missile program, Killian will more likely act as a trouble-shooter—probing into bottlenecks, proposing changes, initiating research objectives.

• **Upgrading Science**—Killian's most important function, however, will be to give science in general an impressive new voice in the inner circle of government. The Senate Government Operations Committee released a staff report this week that suggests what the Killian domain should be.

It recommends creation of a federal department of science and technology headed by a Cabinet officer, founding of a federal academy of science patterned after the military academies, and a wide-scale federal program of science scholarships.

• **Boost for Basic Research**—Most significantly, Killian will be pulling the strings on the basic research aspects of weapons development. In this area, there has been a serious lack of effort—notably because of the indifference of ex-Defense Secy. Wilson and other top Administration officials.

Anti-Missile

The Russians may be close to developing a workable anti-missile missile—and we're working on one, too.

The last six weeks have brought one shock after another from Russian long-range missile development, but the U. S. scientific community is braced for more jolts in the next few weeks. And nearly all the experts agree on the field in which another Russian "first" would be particularly dangerous to the Western world.

That would be the development of an anti-missile missile.

The U. S. has nothing yet in its arsenal of missiles (BW—Oct. 12 '57, p42) that could destroy or deflect an intercontinental ballistic missile. The Air Force and the Army are both working on such a defense weapon. So, no doubt, are the Russians, for there are hints that they may be on the verge of success.

• **Stiff Demand**—Considering the requirements it must meet, development of any effective anti-missile device seems fantastically difficult. Any reliable defense system must be able to detect an ICBM that's moving at perhaps 20 times the speed of sound, plot its course or trajectory, and send up some kind of interceptor to destroy it or turn it away.

The time for detection and interception is precariously short; the precision of the anti-missile missile must be close to perfection. If the interceptor is to be something besides a missile—perhaps a magnetic or electrical field—the defense shield must be powerful enough to stretch out thousands of miles, to keep the oncoming ICBM (presumably armed with a nuclear or thermonuclear warhead) from drenching the land below with dangerous fallout.

On the other hand, if the anti-missile device is to be another missile, it will probably be necessary to fire between 10 and 20 anti-missiles to insure a high kill probability. Interceptor missiles could probably make only head-on "hits"—present computing and radar equipment isn't capable of providing lead data for side shots at a target with the size and speed of an ICBM warhead. And even with side shots added to head-on firing, 100% defense couldn't be guaranteed.

• **Invincible?**—Difficult as the problem of devising interceptor missiles is, it may be foiled before it's perfected—by a new attack theory that now visualizes that an ICBM warhead could be made to prevent a head-on anti-

missile attack by reentering the atmosphere several hundred miles from its target. Upon reentry, possibly over an ocean area, the warhead might be made to change direction and approach the target at an altitude of less than 25 miles and at an average speed of about 10,000 miles an hour.

The ability of this type of warhead to maneuver on its final approach to the target through the atmosphere could conceivably complicate interception to the point of impossibility for current rocket, guidance, and computing systems.

• **Known Defenses**—Little is known about the most advanced research that is going on behind barred doors in university and government labs on the electrical-field type of missile defense. But some information has been released about what the Army and the Air Force are doing.

The Army's Nike Zeus, an advanced version of its 50- to 75-mile Nike Hercules defense against manned jet bombers, is under development by a team of companies led by Douglas Aircraft Co. and Bell Laboratories. This would have a range of at least 200 miles. Douglas has built a mockup for the missile's airframe; Bell has the target-acquisition radar and the guidance and computer systems still on the drawing boards.

The Air Force's Wizard is under contract to Convair and RCA, who won in design competition against projects submitted by Lockheed-Raytheon, Boeing-General Electric, and Douglas-Bell Lab teams. Wizard is in preliminary stages of development. It aims for a firing range of about 1,000 miles.

Another project considered by both Army and Air Force, the Sylvania-Cornell Aeronautical Laboratory "Plato," was canceled in September.

• **Complete System**—Besides Convair and RCA as prime contractors, these other companies are known to be developing components for Wizard: General Electric, warheads; Sanders Associates, antenna systems; D. S. Kennedy, Inc., research on parabolas; Avco Mfg. Corp., electronic antenna steering gear.

Wizard is at least five years from testing as a complete operational system. It is based on long-range detecting devices, with a range of up to 3,000 miles, and long-range solid-propellant ground-to-air missiles that can defend not only against long-range ballistic missiles but also against air-to-ground missiles and manned bombers flying at twice the speed of sound.

Under the President's order calling for a single manager for new missile projects, the competing systems may be taken out of the control—and out of the budgets—of the two services and put in the custody of a central Defense Dept. office.



MIT PRES. James R. Killian, Jr., a top man in the scientific fraternity, becomes . . .

Chief Whip in Scientific Race

James Rhyne Killian, Jr., Pres. Eisenhower's newly appointed Special Assistant for Science and Technology (pages 39, 204), has never been a practicing scientist. Yet a more universally popular choice for the job would be hard to find among the scientific fraternity.

This is probably the greatest tribute to the man, for technical people often hold in high repute only those who have had a technical background and training.

There's no doubt, however, that Killian, 10th president of Massachusetts Institute of Technology, has the profound respect and admiration of scientists. And he, in turn, is an administrator who understands them and is their strongest proponent and advocate.

• **Popular Choice**—Among older scientists, the respect for Killian goes back to the early days of World War II, when Karl T. Compton, then president of MIT, and Vannevar Bush, vice-president, were called to Washington. That left most of the running of MIT to Killian, who at 35 had just been

elevated to executive assistant to the president from his position of editor of the *Technology Review*, MIT's alumni magazine.

During the war, MIT became host to the radiation laboratory—a misnomer, since radiation was not one of the things the laboratory concentrated on. This lab drew to it as many as 4,000 of the nation's top scientists.

"It was a pretty wild bunch," says Bush. "It had to be to get things done. Even without the prestige of having the title of president, Killian ran things magnificently."

Lee A. DuBridge, president of California Institute of Technology, who headed the radiation lab during the war, recalls, "everyone was enormously impressed with Killian's ability to handle the extremely involved relations between the lab, MIT, and the government."

And a MIT dean adds, "The institute was the first major university to take on basic research on a contractual basis for the U. S. government. It was at the radiation lab where all the

thorny problems of a university working with government were hammered out and it was Killian who bore the brunt of them."

More recently, Killian has gained the admiration of the newer generation of scientists by his work for the Administration, much of it secret. Over the past few years, he has spent an average of two days a week in Washington on scientific advisory committees, bringing scientists together, listening, synthesizing, and acting on their reports.

• **The Man**—What kind of man is this who has just been given the responsibility of advancing the nation's scientific defense program? Ask any of his hundreds of friends and associates in Boston and Cambridge, and they'll tell you. "He is the most honest and completely objective man of anyone I know," says a vice-president of an electrical company.

"It's true he's not a producing scientist," says a faculty member, "but he is a wonderful administrator of scientific projects. For example, he was instrumental in setting up Lincoln Laboratory, which is run by MIT for the Defense Dept. and which developed SAGE a few years ago. He personally picked the people who would be on the job, set up their goals, and decided on the over-all projects to be achieved."

"He doesn't panic, isn't alarmed about small things, doesn't clutter his mind with details others can handle, but has an amazing ability to concentrate, sort, and simplify," says another MIT professor. "He is a combination of equanimity and intensity."

• **Up the Ladder**—Killian was born in Blackburg, S. C., in 1904. He entered Trinity College (now Duke University), transferred to MIT from which he received a degree in business and engineering administration in 1926.

Following his graduation, he became assistant managing editor of the Technology Review, and from 1930 to 1939 was editor. "These years," says a longtime faculty member, "provided Jim with an opportunity to serve an apprenticeship in writing. To say he is proficient in the use of the English language today is a vast understatement."

After the hectic war years, Killian moved progressively up the ladder at MIT to vice-president of the corporation. When Compton announced he was retiring in 1948, Killian was unanimously named to fill the presidency.

The 53-year-old institute president—who still loves climbing New England mountains and who collects rare books with special emphasis on the works of George Meredith—reportedly had a moment's hesitation before accepting his new job. MIT had been his whole life, and he feels there is much left to be done.

According to one of his closest associates, however, he quickly realized he had no choice. He knew full well the gravity of the situation, and when the President asked him to go to work on it, he had to go, says the friend.

• **Administrator**—In the coming weeks, Killian will move to Washington where, as he has already announced, he will move as rapidly as possible "to marshal the best scientific and engineering judgment and creative talent in the U.S. and make it available to the President for the formulation of national policy which involves science and technology."

This, according to his friends and associates, is precisely where Killian is at his best.

• **Wide Latitude**—When asked how Killian's new job compares with Bush's wartime duties as research and development coordinator, Bush—who is now MIT's corporation chairman—replied, "They don't at all. I was an executive with a staff of people and a specific job to do. Killian will be more of an adviser."

"This gives him a wide latitude to make of his job what he can. The fellow to think about in this connection is Harry Hopkins. There was a man who, for most of his career in Washington, had no high executive title, but was one of the most powerful figures in the Administration."

"The only danger connected with Killian's new job might have been the relationship with the Defense Dept.," continued Bush. "But fortunately he and Neil McElroy are close friends. The two served on a White House conference on what schools should accomplish, in the fall of 1955. At that meeting they discovered they shared the same view on basic issues. They have had a meeting of the minds ever since."

"Before taking the new job, Killian talked to McElroy and the two men came to an understanding on the approach that should be taken."

• **Big Asset**—Perhaps Killian's finest attribute for his job is his ability to understand scientists. His 30 years at MIT have taught him how to mold into a productive group hundreds of brilliant specialists, all of whom were apt to be going in different directions at once.

Because he understands these people, where each is going, and what is the relationship of each project to the whole, he is genuinely respected. This means that scientists now have somebody at the top they can turn to who will be receptive to their ideas.

Said one electronics company executive this week, "What Jim will bring that's new to the top levels of the Administration is an appreciation that science is an endeavor of the mind and not a commodity that can be bought and sold, turned on and off."

How Efficient . . .

. . . is federal spending? Mills committee is launching a study of what kind of job the government is doing.

Congress is getting ready to take its first hard, philosophic look at federal spending—a look-see that isn't concerned with whether next year's budget should be reduced or whether government spenders are honest.

Rather, a Joint Economic Subcommittee on Fiscal Policy will launch a 10-day study next Monday on the entire gamut of federal spending. The subcommittee, under Rep. Wilbur Mills (D-Ark.), wants to know whether the federal government is spending too much or too little in eight sectors of the economy, and whether the desired growth could be accomplished just as well by somebody other than the federal government doing the spending.

So that he can come up with professional answers, Mills has called on 106 economists throughout the country to take part in the panel discussions that will turn the spotlight on every ramification of federal spending.

• **Tax Cut Clues**—The upcoming hearings on federal expenditure policy for economic growth and stability complement the study on tax policy for growth and stability held by the Mills subcommittee two years ago.

The hearings next week will be watched closely for a clue as to the prospects for a tax cut next year. If the subcommittee should find, for example, that the federal government is spending far more than is necessary to keep some sector—such as housing or highways—growing at a healthy rate, its findings might put valuable data into the hands of groups seeking a tax reduction.

• **Pre-Sputnik**—The economists already have submitted papers covering their particular assignments of the study. These prepared papers already have been pulled together in the form of a 1,200-page document that will provide the kickoff point for the panel discussions. Most of the papers were submitted before the Russians launched their earth satellites. But the discussions will reflect the impact of these developments on the military and research spending programs.

• **Federal Guide**—The parent Joint Economic Committee is not a legislative committee, but under the Employment Act of 1946 is charged with studying major economic programs of the federal government as a guide to the legislative committees. Mills points out that virtually all federal activities may have significant effects on many groups in

the economy and consequently on the total amount and character of the nation's economic activity. Mills feels that the hearings may prove useful both to the executive branch and to Congress in shaping new federal spending programs.

The first section of the panel hearings will try to develop a historical perspective for viewing the amount and character of federal spending. Growth of federal spending will be charted from 1789 when it totaled \$4.3-million up to the \$98-billion of war years such as 1945 and of the \$69.3-billion of cold war year 1957.

A second panel on the opening day will look at considerations in determining what functions a government will perform.

On Tuesday, the subcommittee will take a look at the level of government at which public functions are performed. This is sure to set off a debate over whether certain functions can best be performed by state and local governments rather than by the central government.

• **Second Phase**—The subcommittee then will move to the second phase of the study bearing on the relationship between federal activities and objectives of the Employment Act. One panel will look at government spending in terms of the economic growth that it produces, while another panel will ex-

amine it from the standpoint of its contribution to economic stability.

On Thursday, the subcommittee will look at procedures for determining federal spending programs, with emphasis on the budgetary process. Then the subcommittee will move into the third phase of the study and examine the impact of eight major programs on the rate and character of the nation's economic growth and on the conditions for maintaining economic stability.

• **Line-Up of Experts**—In each of these sectors, the subcommittee has lined up a wide range of expert viewpoints, and in many of the areas will lead off with a statement by the secretary of the government department involved, or by a policy official. Serving on the panels will be such prominent economists as Robert T. Patterson and Daniel C. Vandermeulen of Claremont Men's College; Charles E. Lindblom of Yale; Richard Musgrave of the University of Michigan; Werner Hochwald of Washington University; and James S. Dusenberry of Harvard.

The subcommittee will start with national security and follow with foreign aid, natural resource development, regional development, housing and urban redevelopment, development of human resources including health, education, and social security, transportation, winding up on Nov. 27 with a look at spending for research and development.

Lid Is Off Garbage Racket

Underworld activities in the private sanitation industry is latest target of McClellan committee. The charges include everything from homicide to extortion.

The private sanitation industry—which collects refuse from homes and business places—is an important but little-heralded industry. And, in the opinion of Sen. John L. McClellan, chairman of the Senate racket investigating committee, it is one in which widespread labor-management corruption may be found.

The McClellan committee wound up one phase of its probing into management malpractices last week. After more than two weeks of testimony about the activities of a private consultant, Nathan W. Shefferman (BW—Nov. 9 '57, p. 32), the committee chairman commented pointedly:

"One thing is made clear by these hearings: When dishonest management and dishonest labor-management consultants get together with dishonest labor leaders, it is the worker who suffers. . . . Elements of management must take the heavy blame for the activities which have been unfolded before this committee."

With that, the Senate investigating body turned its attention to a somewhat similar problem in Greater New York's \$50-million-a-year garbage collection industry, and to "how individuals, some of them underworld hoodlums, have attempted to build business empires in the private [garbage] carting industry through a system of monopoly enforced by trade associations and cooperative labor unions."

• **First Target**—The committee's first target in New York is Vincent J. Squillante, a labor relations man identified by Sen. McClellan as "a person with an underworld background and no previous experience in the labor-management field." Squillante is the self-styled godson of Albert Anastasia, a New York racketeer murdered several weeks ago.

The "natural result," according to the McClellan statement, was "outbreaks of violence and eventually coercion, extortion, and fraud."

The committee called about 30 witnesses, many of them described as

"underworld characters" having a long record of arrests and convictions. It had wanted Anastasia as a witness. Gangland executioners got him first. • **"Missing"**—As hearings opened, Robert F. Kennedy, chief counsel of the committee, reported seven other witnesses as "missing." One was the head of a carting company, listed as a man arrested four times and questioned in connection with the unsolved murder of John Acropolis, a Long Island labor leader, in 1952. Another was the former owner of a sanitation company, listed as a man with a record of four arrests and a conviction for first-degree manslaughter. A third, with a record of five arrests including two felonious assaults, was formerly associated with a sanitary haulage concern. A number of the others had similar backgrounds.

The Acropolis slaying five years ago was brought up in the hearings early this week by Edward Doyle, president of a Yonkers local of the Teamsters and one of those working for a cleanup in the truckers' union. Doyle, who succeeded Acropolis as the local's president, blamed his predecessor's slaying on "muscle men" in the garbage collection industry. Doyle testified that he had heard two racketeer unionists threaten Acropolis, who had refused to give in to their demands that his local turn over a number of garbage collection contracts. Doyle also said he had been threatened once since as rival groups continued their efforts to get a "stranglehold" on the garbage industry.

"Are you apprehensive of personal violence?" Sen. McClellan asked.

"You got to die some time, Senator. You can't live forever," Doyle replied.

Committee investigators identified one of the two men named by Doyle as a former associate—now dead—of Lucky Luciano and Louis (Lepke) Buchalter in Murder, Inc. Doyle testified that Acropolis was told not to "think you're that tough we can't take care of you." Three weeks later he was shot to death.

The murder story was the early highlight of this week's hearings, but on Wednesday other testimony on the use of homicide and violence—including burned trucks, coercion, and extortion was unfolding in the committee room.

• **Smoggy City, Too**—Although the probes are centering their attention on Greater New York, the committee recognizes that Los Angeles faces "similar problems arising from attempts to create monopoly situations by association and union factions" in that city's \$20-million-a-year garbage collection industry. It called one witness, a Los Angeles police captain, to testify about his city's troubles with racketeers in the garbage hauling business. Later, the committee plans to hold further hearings on the Los Angeles situation.

Cleanup in the Auto Showrooms

● Statistically, the clearing of the 1957 models went better than ever this year. Stocks are well below the level of this time last year.

● But dealers mourn that it was unprofitable. Only the company bonuses repaid them for their work, they say.

● And many of them don't like the bonus system.

Nothing cheers auto dealers as heartily as near-bare showrooms at new model time. It means not only that old models have been scooped up, but that there's little hangover to compete with newer autos.

So you'd think that this week, with new 1958s rolling into agency showrooms, auto dealers would have grins a mile wide. After all, a *BUSINESS WEEK* survey finds that dealers have just completed one of the most successful cleanup campaigns in recent auto history. Only 10 weeks ago, dealers had inventories of some 820,000 cars. Ward's Automotive Reports estimates that by Nov. 1 this figure had been pared to a meager 240,000. This would make stocks lower than last year's 350,000 at a comparable time.

• **Small Joy**—But although there are clean floors aplenty in agency showrooms, auto dealers are far more like ostriches than hummingbirds:

"It was almost a giveaway cleanup." (Toledo dealer)

"Why should I be happy? I've been giving away cars for the past two years, and I'm getting only 1½% net profit on each car." (New York Ford dealer)

A Denver dealer put it even more sharply:

"The emphasis this year was on price, with assists in the form of manufacturers' bonuses to move cars. I don't like it. It trains the public to disregard the list price, and heaven knows the public doesn't need any further training. You don't sell autos anymore—you sell price. The public knows most autos are pretty good, so it shops around until it finds what looks like the biggest bargain. Besides, manufacturers' bonuses remove incentives for real selling."

I. Clearing Inventories

Considering the bulging inventories they faced in September, dealers have done a remarkable job in clearing out 1957s. In several cities, notably Houston, Dallas, Los Angeles, and San Francisco, dealers said they could have used even more of the old models. In Los Angeles, for example, dealers even

bought cars from other dealers because they had run out of their own stock.

In those cities where stocks still remain, there's little concern: "I'll probably be able to make a better deal on a '57 next May than right now" is a common remark.

• **Price-Conscious**—However, getting rid of inventories at the model change-over wasn't so hard a task as it appears. For one thing, some buyers are disgruntled at the prices of 1958s. They're at least \$150 higher; when extras are thrown in, they climb far higher.

Besides, say those dealers who minimize higher prices as a factor in this fall's yearend rush, buyers have become conditioned to think of cleanup as bargain time. Says an Atlanta Buick dealer: "There is a certain group of customers who wait until the last month of the model year and come in expecting a good deal."

These customers, says a Brooklyn Chevrolet salesman, are shoo-ins for sales regardless of the asking price. "They don't know they could have gotten a better deal four months ago."

II. Making Profits

More important, of course, than clearing inventories is making profit.

"We were selling \$3,200 cars for \$2,695 and we still have four models left." (Chevrolet dealer in Portland, Ore.)

"We had the prices cut to the bone, right to the point where some 1957 cars were moving out at practically no profit at all to us." (Toledo dealer)

• **Sober Madness**—At times, dealers can offset lean prices by whacky merchandising gimmicks to stimulate volume buying. But this year's midsummer madness was subdued. A few dealers offered stock shares, some gave away flashlights, sewing kits, and miniature cars. A Ford dealer in New York took the bull by the horns and advertised—for the first time—in the Chinese directory. ("We sold some cars.")

But dealers mostly played down merchandising gimmicks. And when many saw that buyers weren't fearful of 1958

prices ("They knew we didn't dare raise prices too high anyway"), they fell back on the auto industry's bonus plans.

Under these plans, a manufacturer gives a dealer a cash bonus for each car he sells beyond a certain percentage of a set quota. The precise quota varies from maker to maker, but usually consists of the total cars on hand at the beginning of a campaign plus whatever model cars have been ordered for delivery during the "cleanup" period.

III. Bonus System

For example, the Plymouth bonus plan this year ran from Sept. 11 to Oct. 31 (introduction date of the 1958 model). Assume that a dealer had 90 cars on hand Sept. 11 and another 10 due before the 1958s began to arrive. The dealer's quota was then 100 cars. Under the Plymouth plan, the dealer received no bonus for the first 70 cars he sold. But for the 71st through 80th cars, he was awarded \$50 each; for the next 10 cars sold, \$75 each; for the final 10 cars, \$100 each.

Other makers have similar plans. More than ever now, too, Detroit is offering better rebates and discounts on unsold and hard-to-sell cars. This allows a dealer more elbow-room to bargain with customers.

• **Stimulating**—Bonus awards naturally stimulate volume selling, for the dealer collects his bonus whether he sells his cars at a profit or not. This season, the dealer was likely to forget about unit profit and work for the bonus, because Detroit apparently offered more incentive than it had in a long time.

A Ford dealer told *BUSINESS WEEK* that all 174 dealers in the San Francisco area ranged far and wide to acquire additional 1957s, not so much because there was a demand for them but because the factory offered such an attractive bonus.

In Memphis and Portland, dealers reported cash bonuses for the first time since the war. "In past years, the manufacturers have given credits, or parts, or points. But this year we got cash."

• **Gripes, Too**—Although they readily accepted the money, not all dealers are happy about Detroit's incentive plans.

"As far as we are concerned it wasn't worth a hoot," says a Buick dealer in Portland. "Some dealers with low volume gave some cars away just to get the top bonus on a lot of cars. This system hurts the guy who got out and hustled early in the year, and it gives a shot in the arm to the dealer who hasn't sold more than half a dozen cars. His quota is so low he easily gets the top bonus."



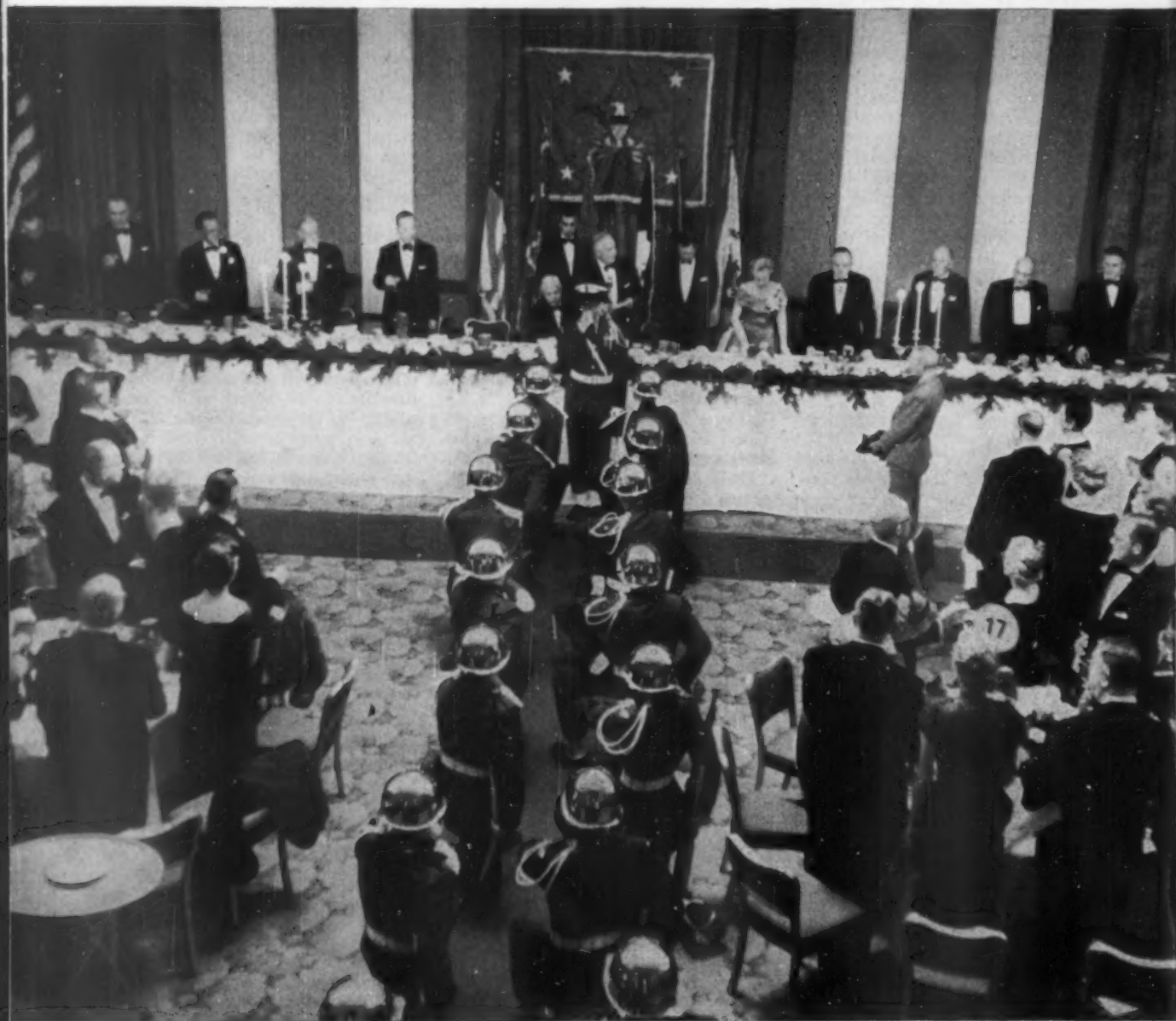
FRIENDLY wishes meet retired Defense Secy. Charles E. Wilson and Mrs. Wilson (light wrap), arriving for dinner; Mrs. Wilson was as much a star of the show as her husband.

Detroit

"C. E."—and his Jessie—came home officially to Detroit this week after four and a half years as Secretary of Defense, grayer than when he left, but still smiling and in no mood to apologize—Sputnik or not.

And, dinner-jacketed and evening-gowned, 364 of Detroit's leading citizens—who long have argued that Charles Erwin Wilson was the best government official Washington has seen in years—turned out at a \$25-a-plate dinner to welcome him back.

Wilson, former president of General



POMP AND CEREMONY include colors and honor guard from three services; Army Secy. Brucker, Adm. Radford were guests.

Hails Favorite Cabinet Member

Motors Corp. (which put him back on the board last week), was Detroit's most respected and admired businessman before going to Washington in 1953. But Detroit then had misgivings about his Washington venture. What was expected to happen was indicated by Harlow H. Curtice, his successor at GM: "I told him [before Wilson took over the Defense post] that politics was a rough game. The pot shots of politicians and press would leave their mark in the end, I said, and he could hardly expect to return to private life

with an enhanced reputation." But at the dinner, Detroit officially acknowledged the error of that view. Said Curtice, "I cannot recall a man so universally praised as he stepped down from high office." The dinner put an exclamation point to Curtice's remark.

• **Accounting**—Actually it did more than that. It was the occasion of Wilson's first full-dress account of his stewardship since leaving the Defense Dept.

Last week, when Pres. Eisenhower telecast his speech on science and security, Wilson left an Automotive

Safety Foundation banquet to go up to a hotel suite to watch and listen to the President's talk. Afterward he commented that the President's remarks—even the appointment of James R. Killian, Jr., as scientific assistant to the President—had no surprises for him. But he said he was making some changes in his own speech.

In his speech, Wilson steadfastly stuck to previous Defense Dept. assertions that "neither Sputnik I nor Sputnik II is in any sense a military weapon. . . . [although] the satellites launched



OLD-TIMERS—Wilson chats with Chrysler Corp.'s Pres. L. L. Colbert (center) and Henry Ford II, his pre-1953 arch-rivals.



GIVING HIS ACCOUNT as Defense Secretary, Wilson feels sure U. S. and Russia are only a few months apart in missiles.

NEW GENERATION—George Romney (left), American Motors head, and GM's Pres. Harlow Curtice, rose since Wilson left Detroit.

by the Russians are a measure of their technical competence in the ballistic missile field. . ."

"Whether the Russians or we are ahead in missile development, I do not believe anyone can say with certainty, but I do feel certain that we are only a few months apart either way, and this probably will continue to be so."

• **Farewell Quips**—Wilson took note of criticism that the Defense Dept's current budget was too small, by pointing out that Congress reduced the original proposal from \$38.5-billion to \$36-billion, and added, "I will be back with my friends in Detroit watching with a great deal of interest from the sidelines this winter when the '59 defense budget is presented to the Congress, and Congressional committees review past actions and recommend changes in programs and expenditures for various purposes."

Wilson, well-known for self-deprecation, obviously feels his past actions can stand up under review. He brought a chuckle when he said: "As I was leaving, I finally decided we must have done a fairly good job of readjusting our program, for I seemed to have everyone affected equally disturbed and critical of the actions we took to reduce expenditures and live within budgets. At times it seems like everyone was mad at me."

• **Competitors and Friends**—No one was mad at him last Monday—even Henry Ford II, toastmaster for the evening, who said, "I also share with a few people here the marks of his competitive fangs, and it is just a little distressing to see him back on the GM roster."

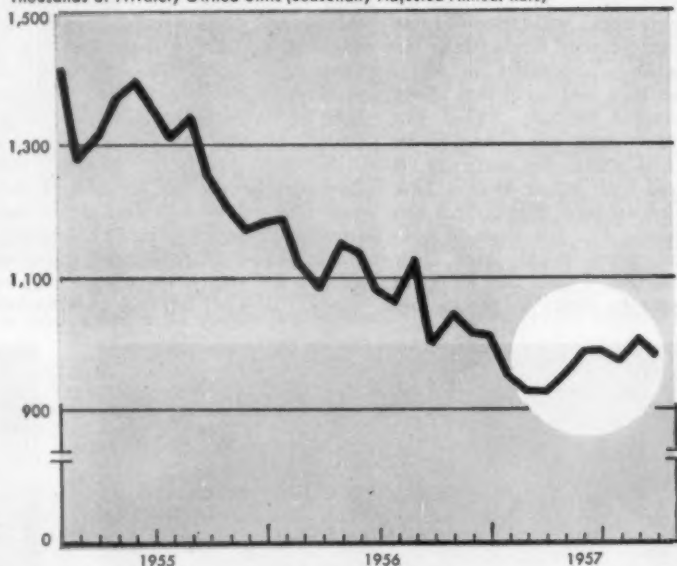
Even in the tight-knit auto industry, where the best of friends fight each other bitterly from 8 to 6 and drink together later, it was an unusual, family-type evening. Most of the executives' wives were there; Jessie Wilson was as much the center of attention as her husband, and took a bow at the bidding of Henry Ford.

Much of the sidetalk was about Wilson's plans for raising cattle (although there already is talk in Detroit that Wilson may resume some sort of activity for GM). The gift of the co-sponsors of the affair—Walker Cislser, president of Detroit Edison Co. and Selden Daume, vice-chairman, Detroit Bank & Trust Co.—was a sterling silver platter etched with a picture of the Wilson home, "Longmeadow."

Visible also, however, were the official gestures to the position Wilson had left: an honor guard and color guard of the three services; the presence at the speakers' table of Army Secy. Wilber Brucker (a Michigander) and Adm. Arthur W. Radford, chairman of the Joint Chiefs of Staff for much of Wilson's tenure as Defense Secretary.

Housing Starts

Thousands of Privately Owned Units (Seasonally Adjusted Annual Rate)



Data: Dept. of Labor.

Still in the Doldrums

Housing starts, likely to total 980,000 this year, show little hope of rising in 1958 despite the hopes of some economists. Even if credit gets easier, prices will freeze out many buyers.

All year the homebuilding industry has been moving along a dreary plain that seems to mark the bottom of its slide from its 1955 peak of 1.3-million home starts.

Even with the help of a little pickup toward the end of the summer, the industry will wind up this year with a total of only 975,000 to 980,000 starts.

For 1958, at least some economists see the promise of an upturn. But the industry itself thinks the prospect is hardly any better—despite a 6% gain in the dollar volume of next year's new home construction forecast jointly by the Commerce and Labor Depts.

Those are the prime conclusions of a survey made last week by BUSINESS WEEK reporters who spoke with hundreds of builders and mortgage lenders in the nation's major metropolitan centers. In all but a half dozen cities, BUSINESS WEEK found that builders expect their business next year will be no better than this year. And even in those centers where the builders are optimistic and talk of a possible 5% gain in the number of houses they'll build, most

of the mortgage lenders foresee no easier credit for home buyers.

• **National Doubts**—Homebuilding is, of course, a local industry, deeply affected by local conditions. These days, though, builders' pessimism is spread pretty evenly over the nation.

In Portland, Ore., one builder who put up 100 homes in 1956, and 57 this year, says of 1958: "Unless things begin to move I won't build any at all next year. I still have on my hands houses I built in 1956. I'm sitting here with \$250,000 tied up, and I can't make my overhead." In Boston, a builder says: "Prospective buyers don't come out to see the houses any more. They stay at home, frightened away by high prices, tough financing, and all this talk about a 'breathing spell' for business."

In Detroit a low-price homebuilder says: "Our costs are going up; our prices will just have to rise. But you can't sell a house that cost \$3.83 an hour to build to a man who's getting \$2.71 an hour on the assembly line." And in Atlanta, one large development builder says: "Next year looks dim. Even when we're talking 5 1/2% interest with a 2-point discount, the lenders aren't interested."

• **Money Stays Tight**—Almost everywhere, the mortgage lenders agree with the prospect of little or no change in credit available for homebuilding next year. Last week, the Mortgage Bankers

How safety helped Charlotte Pipe & Foundry Co. connect with savings of \$87,751!

by MR. FRIENDLY*

At Charlotte Pipe & Foundry Company in Charlotte, North Carolina, the nation's oldest continuous maker of cast iron soil pipe, safety is an ironclad policy—and Mr. Friendly helps formulate it.

Safety engineers from his company—American Mutual—regularly get together with their counterparts at Charlotte Pipe & Foundry Co. to find new ways to keep accidents down.

Many important benefits have flowed from this cooperative effort. Accidents and injuries have been prevented—and employee morale and efficiency boosted. What's more, Charlotte Pipe & Foundry Co. saved \$87,751 in just the nine years from 1948 through 1956—\$59,067 in insurance premiums** and \$28,684 in dividends.

If you'd like to know how American Mutual services can help you save money, write for your free copy of: "How 15 Companies Saved \$3,193,474." No obligation, of course. Write: American Mutual Liability Insurance Company, Dept. BW-11, 142 Berkeley St., Boston 16, Mass.



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*Mr. Friendly in American Mutual's trademark symbolizes the spirit of cooperation and service typical of American Mutual Representatives everywhere.

**Difference between manual rates for this industry and rates actually paid during these years.



Assn. of America met in Dallas, Tex., for its annual convention, and a large majority of its 3,000 members predicted home financing would be no easier next year. This week, back in their home town offices, the mortgage men held steadily to that opinion.

In Houston where several builders say they expect a slight gain in their business next year, the city's major mortgage lenders foresee no change in the funds they'll make available. In New York, the major mortgage lenders predict no change in their market through the first half of 1958. And in San Francisco, home loan banks say credit hasn't eased and isn't likely to.

• **Easier Money?**—It's possible that the mortgage men may be surprised sometime in the next few months. Their predictions are based on the assumption that the Federal Reserve is not going to backpedal on its tight money policy. And they are not allowing for the possibility that business will be leaning less heavily on the capital markets in 1958. If they are underestimating either of these factors, they may have more money to hand around than they realize.

Nevertheless, the builder who is looking ahead to 1958 is getting the word from his financial sources to plan on no big change in the financial picture. Lenders may change their tune abruptly in a few months, but they are sticking to the familiar tight-money theme for the moment.

• **Causes**—In the two and a half years since their industry started its long slide, homebuilders have lashed out pretty consistently at the Administration's tight money policies as the cause of all their woes. They still direct much of their ire at those policies. But increasingly they're realizing that other factors are keeping their market down.

The rising costs of land, labor, and materials have steadily been making it more difficult for them to hold their prices within the range that the population's middle-income segment can afford. More often builders admit nowadays: "Our costs have been going up faster than personal income. We've tried to absorb these wherever we can, but when volume is low you can't absorb too much."

• **Prices**—From what builders say now, it's plain there will be a fairly general rise in home prices next year. The increases, as builders gauge them now, will range from 2% to 5%, depending generally on land costs and the signing of new labor contracts. Almost every builder who plans a price increase realizes this jeopardizes his sales prospects.

Just as important as increased home prices, the homebuyers' school taxes and heating and commuting costs have soared in most suburban communities. Says a New York builder: "Those

charges, added to mortgage payments, are pushing the buyers' monthly payments out of line. Two years ago, an \$8,000-a-year man could meet all the payments on a \$20,000 house. Now the buyer needs to make at least \$10,000 a year."

• **Stay-At-Homes**—One result comes clear from the Commerce and Labor Depts. statistics. An increasing share of the money put into private residential construction is being spent on additions and improvements to homes. Some 20% of the total was spent for this in 1956. This year and next that share will increase to about 25%.

Says a New York mortgage broker: "More and more home owners who need more space and would perhaps normally buy a new home are instead adding two rooms and another bath to the place they bought six or eight years ago. For this they need around \$5,000. They'll refinance the \$6,000 or \$7,000 still outstanding on their original mortgages, wind up with an \$11,000 or \$12,000 mortgage, under FHA, at 5 1/2%. Certainly their expanded homes won't be new, but on a new home they'd be involved in at least an \$18,000 or \$20,000 mortgage."

"There's more to a buyer's psychology than just a desire for a shiny automated kitchen. He'll often reckon it worth much more to stay in the neighborhood he knows, where he has been paying taxes steadily and which is probably closer to the city than the site of any new home he could find."

• **Middle Income's Choice**—Echoes of this view are being heard more often. Says another mortgage banker: "For the middle income group the choice for homes lies now in the 5-million houses built from 1946 through 1950. Houses built later than 1950 cost \$16,000 or more—and they're beyond the reach of middle income people."

And in Toledo, a builder's comment emphasizes the thinness of the market for lower-priced homes: "If the 1958 cars sell well, we're hurt. Our potential buyers are normally in the Ford, Chevy, or Plymouth market. If those lines sell fast, it means our customers are putting their downpayments on cars, not on houses."

• **Cautious Mood**—In all their planning for next year, the nation's homebuilders worry about one major factor whose influence on their business they cannot yet predict: What's happening to the public's buying mood?

In Washington, the National Assn. of Home Builders cites Pres. Eisenhower's comments on the economy's "breathing spell" and assumes that if the Administration talks cautiously about the economy people will hesitate much more about the so-called "second most important decision in a man's life"—buying a home.

"Hot Cargo"...

... contracts with a common carrier violate Taft-Hartley's ban on secondary boycotts, NLRB says.

Taking a 360-degree turn, the National Labor Relations Board now holds that "hot cargo" contracts involving trucking and other common carriers are illegal. Extending earlier rulings, the board by a 3-2 decision outlawed the Teamster practice of applying pressure on one employer through another.

"Hot cargo" is material produced in a struck plant or by an employer on a union unfair list. The Teamsters and other unions frequently negotiate contracts specifically providing that a company's employees need not handle goods listed as "unfair" by their union.

Eight years ago, NLRB ruled that such a contract clause was legal. Three years ago, Eisenhower-appointed board members took a half-turn from this position. They approved "hot cargo" contract clauses, but curbed union efforts to enforce them. A case based on this ruling is now before the Supreme Court.

• **All the Way**—In the current case, involving the Teamsters and the Genuine Parts Co., of Atlanta, the NLRB majority went all the way in ruling that a "hot cargo" contract with a common carrier—such as a truck line—is a violation of the secondary boycott ban in the Taft-Hartley Act. The decision reversed an NLRB trial examiner who had held that the Teamsters union acted within the law when it "advised" members employed by truck lines that they could refuse to handle freight from the Genuine Parts Co. The "advise" was in line with provisions in the union's Southern Conference contracts.

The board limited the scope of its decision to "where the contracting employers are common carriers." According to the NLRB majority, the transport employers "are not free to decide, at will, to withhold services . . . from any customer or class of customer." Union efforts to require them to do so are therefore illegal, the board ruled.

One member, Phillip Ray Rodgers, wanted a broader decision that a "hot cargo" clause is contrary to public policy and not valid in any industry. However, the majority opinion makes clear:

"The . . . major reason for board refusal . . . to hold 'hot cargo' contracts invalid postulates . . . that if employers may, at will, refrain from doing business with any individual, they may validly agree to refrain from doing business in anticipation of union requests to that end."

Progress with **TITANIUM**

New Titanium alloys

*developed by Mallory-Sharon
for the missile age*

Two remarkable titanium alloys developed by Mallory-Sharon's Research Laboratory further extend the usefulness of the metal in hot environments. This development promises more and more applications in rockets and missiles for titanium—strongest metal per pound of weight in its temperature range.

Commercial introduction of these new alloys culminates research and development over a two year period. In the intensive evaluation of both laboratory and production ingots, thousands of individual tests were made and analyzed. The results:

The first new alloy (MST 821) is a weldable sheet and bar material which offers strengths equivalent to similar titanium alloys—at temperatures two hundred degrees higher. This exceptional advantage is maintained in the range of 400 to 1000 degrees F.

The second new alloy (MST 2.5Al-16V) offers remarkable ease of fabrication for a high strength material. Sheet metal parts can be readily formed while the alloy is relatively soft, then can be heat-treated to high strengths. Heat treatment more than triples the strength level of this alloy.

As titanium's future in our air defense grows, it is likewise proving its economic advantages in new industrial applications. Let Mallory-Sharon, technical leader in titanium, help you *design ahead* with this new metal.



MALLORY  SHARON
MALLORY-SHARON TITANIUM CORPORATION - NILES, OHIO



Producers of titanium and titanium alloy sheet, strip, plate, rod, bar, billets

In Business

. . .

Commerce-Labor Look for Gain In Dollars and Volume of Building

Construction will give the economy a little lift next year, if this week's forecast by the Commerce and Labor Depts. pans out. The experts foresee a 5% rise in spending on new work in 1958. This would mark a real gain in physical volume, since the bureaus don't expect construction costs to rise more than 3%.

In contrast, 1957 will wind up with a record dollar figure (around \$47.2-billion) but a slight decline in physical volume. The rise of 2% in dollars doesn't match a 3%-5% rise in construction costs. Builders hope the new Commerce-Labor forecast holds up better than the one a year ago. At that time, the statisticians predicted a \$2.5-billion gain for 1957; the revised guess this week is about \$1-billion.

Next year's predicted gain amounts to \$2.4-billion. It's based on about 1,045,000 private housing starts and a rising trend in private utilities and public works construction, to offset a 9% drop in industrial construction. A minority group in Commerce and Labor thinks the consensus of opinion is too rosy.

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Trial Opens in State's Claim On \$7-Million of Trading Stamps

A Trenton (N. J.) dateline has special eye-catching value these days for the nation's trading stamp people. This week in Trenton, a state court started trial of New Jersey's three-year effort to collect \$7-million from Sperry & Hutchinson Co. (BW-Dec.8'56,p51).

The state says at least 5% of the billions of green stamps issued by S&H through retailers since 1900 have never been redeemed. In behalf of the unidentified owners of these stamps, the state contends it has a right to claim their value.

S&H argues, in effect, that there is not abandoned property for the state to fall heir to—the company still stands ready to redeem any stamps that are turned in. "An effort to ruin the business of a company which has been reputable for over 60 years," a company lawyer called the suit.

. . .

High Court to Define Authority Of FTC, States Over Insurance

A long-smoldering controversy over how much say the federal government should have in the insurance business is about to be whipped into flame again. The U.S. Supreme Court agreed this week to hear two appeals by the Federal Trade Commission involving

authority to forbid alleged false and misleading advertising in the interstate sale of health and accident insurance.

Lower courts threw out FTC charges against the American Hospital & Life Insurance Co. of San Antonio and the National Casualty Co. of Detroit. The courts ruled that the McCarran-Ferguson Act in 1945 bars FTC from policing interstate advertising except where states have no regulatory laws of their own.

FTC itself was divided on the legal point, voting only 3-2 in favor of action against the two insurance companies in 1954. The majority view: The 1945 law meant FTC may regulate interstate practices as long as it doesn't interfere with state laws. The minority view: The law was designed to avoid the confusion of superimposing federal regulations on state regulatory systems.

The issue is broader than mere regulation of advertising. Critics of FTC say it could "open the door wide to complete federal control" of the insurance business.

. . .

GM Offers Refund of Profits That U.S. Says Were Excessive

General Motors Corp. and a House Armed Services subcommittee this week released copies of letters indicating that GM is willing to turn back \$9,701,458 gross in disputed excess profits on a \$375.9-million Air Force jet fighter contract (BW-Aug.24'57,p38).

Last week, the Air Force apparently accepted a check covering \$5-million gross (about \$2.4-million after taxes). Letters indicate that GM is ready to refund a gross of \$4,701,458 on another stage of the contract unless the Justice Dept. pushes a suit—in which case the matter would have to be settled in court.

. . .

Business Briefs

The year shapes up: The farm crop year is running out, and Agriculture Dept. calls it one of the best in history.

Fine growing weather and higher yield per acre canceled out the effects of the soil bank and controls on planting. . . . In September, says the Commerce Dept., business inventories rose above August at only half the average gain earlier this year. . . . Retail sales in October topped the 1956 month by 4% but lagged 2% behind September, Commerce reports.

Rem-Cru Titanium, Inc. (page 176) is now Crucible Steel Co.'s baby. Crucible this week bought out the half-interest of Remington Arms Co. . . . **The Maico Co., Inc.**, of Minneapolis, maker of hearing aids, now belongs to W. A. Shaeffer Pen Co. of Fort Madison, Iowa.

Lockheed Aircraft Corp. is catching up with the British. Its turboprop Electra transport is being ground-checked a month ahead of schedule, while the British Bristol Britannia is having troubles (BW-Nov.9'57,p36).

See what 3M adhesives are doing today!



THE BLACK SEALER YOU SEE LOCKS WEATHER OUT OF THIS MODERN WALL IT'S NEW WEATHERBAN BRAND CURTAIN WALL SEALER BY 3M.

Sealing curtains of glass

More than 80% glass, this "curtain wall" hangs in sections on the face of the building.

Wind and rain would whistle through its joints. But a tough, new 3M sealer seals these openings weathertight . . . stops weather right in its tracks.

WEATHERBAN Brand Curtain Wall Sealer adheres strongly to glass and metal, unites them into leakproof, lightweight walls. It flexes, stretches,

compresses with wall movement. And it goes on sealing despite sun, ice and buffeting gales. In fact, tests show WEATHERBAN Sealer may actually withstand hurricane fury.

Hundreds of other 3M adhesives, coatings and sealers serve industry in equally vital ways.

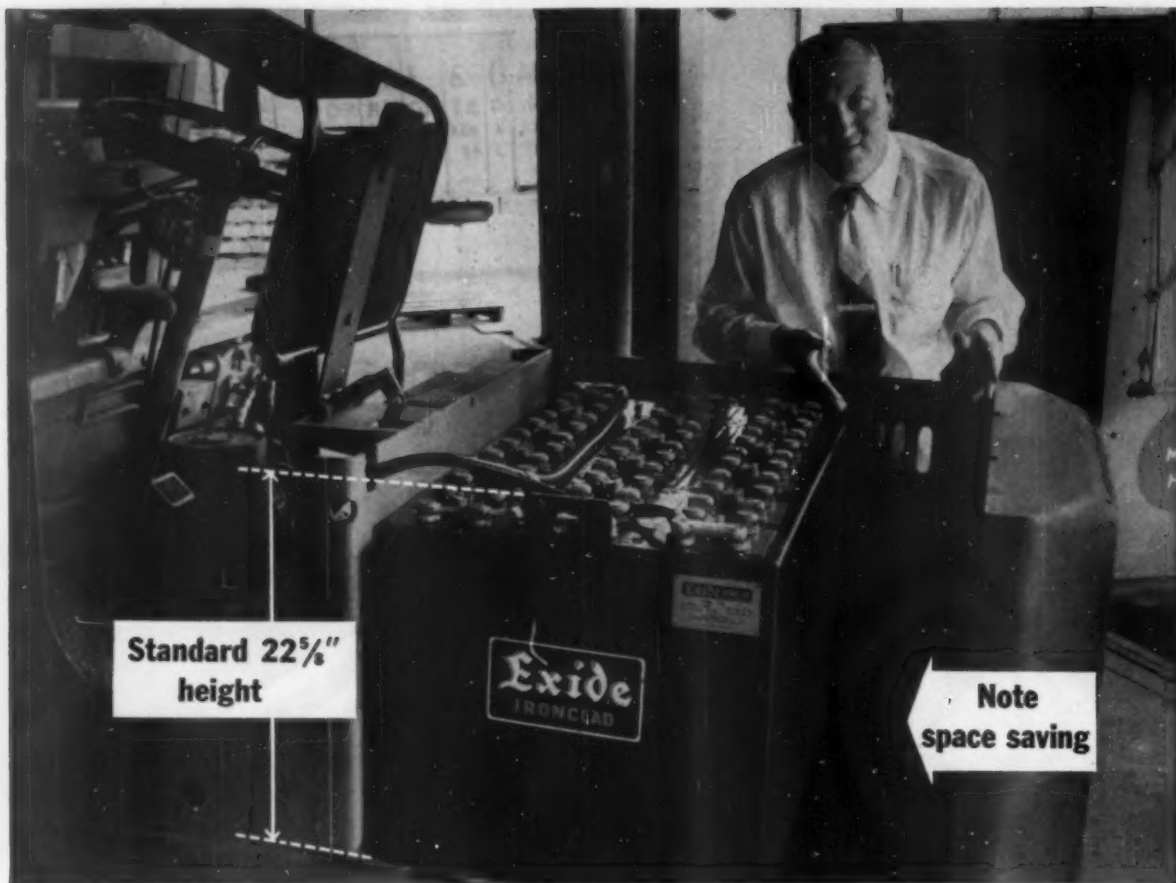
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NEW TG EXIDE-IRONCLAD BATTERY PACKS SAME POWER IN SMALLER SIZE FOR LOWER COST

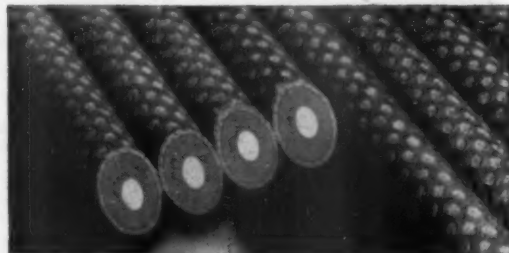
Improved design gives more power and life per dollar. Superior peak-load performance.

Here's the kind of battery economy that really counts: more power and life per dollar. The TG Exide-Ironclad is the most advanced and economical battery ever built for electric industrial trucks.

Every plate packs more power; fewer plates are required to perform a given duty cycle. That means you get a more compact battery with the *standard 22 5/8 in. height*. It also means that, for a given capacity, the new TG costs you less. TG's armored porous tubing prevents practically any loss of active material; so even greater economy is gained as a result of its long, dependable service life.

More work from your trucks. The compactness of the TG means you can install more power in your trucks—thus, get more work from them. For a given size truck, TG can give you up to 44% more power than batteries you might otherwise use.

Only Exide offers you so much. When you order new batteries, get all the power, performance and life your dollar can buy. Get TG EXIDE-IRONCLAD. For full particulars about the extra productivity and longer life of the new battery, call your EXIDE Sales Engineer, or write Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 2, Pa.



New, more porous armored tubing for positive plate. Eases current flow. Holds more active material. Boosts battery power. Corrosion resistant Silvium® grid insures long plate life.

*Exide's patented grid alloy

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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
NOV. 16, 1957



Washington is in a state of urgency—but short of emergency. Some new calculations are in order. There will be no tax cut in 1959—close Presidential advisers say there will be no tax increases proposed by the President, either.

Defense contractors in the newer, gee-whiz area will get more business. Firms dealing in civilian services and welfare will get the short end, so far as Washington appropriations are concerned.

Eisenhower hasn't asked for a guns instead of butter regime. But he is firmly calling for delaying a lot of popular government services.

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The President made a turnaround of policy. And some of the change occurred on the plane en route to Oklahoma City. One tell-tale example: His phrase about the "worshipping of a balanced budget" (page 39) was not in the draft of the speech when the President left the White House to board the Columbine for the Southwest. Obviously, it was inserted in flight by the President and his aides.

Full proof of the turnaround is in the tone of his speech—not the words. The White House had the reaction from his TV speech of last week to draw upon this week, and a lot of the reaction was disappointing. Too many, and not only partisan Democrats, objected that the President was sugar-coating the ominous successes of the Soviets.

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Democrats in control of Congress won't let the President off scot free. They will hammer at "lack of leadership" and "too little, too late"—making the most political hay possible of the U.S.' second-best showing in fields where our supremacy had been assumed.

—•—

The debt ceiling won't be so big a political issue now as some Democrats had hoped. They had planned to embarrass the Administration as much as possible before letting the lid up; now, if needed, the ceiling will be raised without so much as a quibble.

Congress may have different views on cuts in welfare programs. It sounds good to cut back on non-military spending to pay for defense and security. But one-third of the senators and all representatives are running next year, and cuts that hurt in their home districts can't be completely offset by speeches about guided missiles.

A lot of programs are involved—housing, flood control, post offices, power dams, ship subsidies, postal rates, business statistics, farm subsidies, school lunches, and the like.

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Eisenhower was right when he said cutting these would be distasteful to Congress. Congress isn't likely to be so sacrificial as the White House would like it to be.

The big issue of course will be U.S. security—the biggest domestic issue of all.

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The question: Who's to blame for the U.S. lag? There's no question about a lag in the space weapons field. Pres. Eisenhower has acknowledged it, and so have many of his lieutenants. Former Democratic Pres. Truman

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
NOV. 16, 1957

has cut in on the act, claiming he had things going well until the economy-minded Republicans took over Washington.

There is much public confusion, since it's a field where security censorship is tight. And the pieces don't always fit together in a neat and clear picture. But the answers to many of the questions are pretty clear by now.

How did Russia get ahead? Take a look at what has happened since Germany collapsed in 1945.

What did Russia want out of Germany, other than revenge? We have put this question to some of our own and to German scientists who have come to the U. S. in recent years. The answers—when you add them up—are revealing.

Russia wanted the V-2 secret. That was the ballistic missile the Germans used in the last stages of the war to terrorize London. It was a crude weapon, but it sired a family of weapons.

The Reds wanted the Wasserfall. That was a ground-to-air missile—the father of today's defense against incoming planes.

And they wanted the hypersonic bomber plans—the German research on a new and terrible warplane that could go beyond the earth's gravity and atmosphere, but which would be controlled by pilots and have almost unlimited range and terrific speed.

What did Russia get? It got a head start in all of these military fields. The U. S. also got much of the German knowhow but Russia gave every project all the brains and other resources required to go ahead.

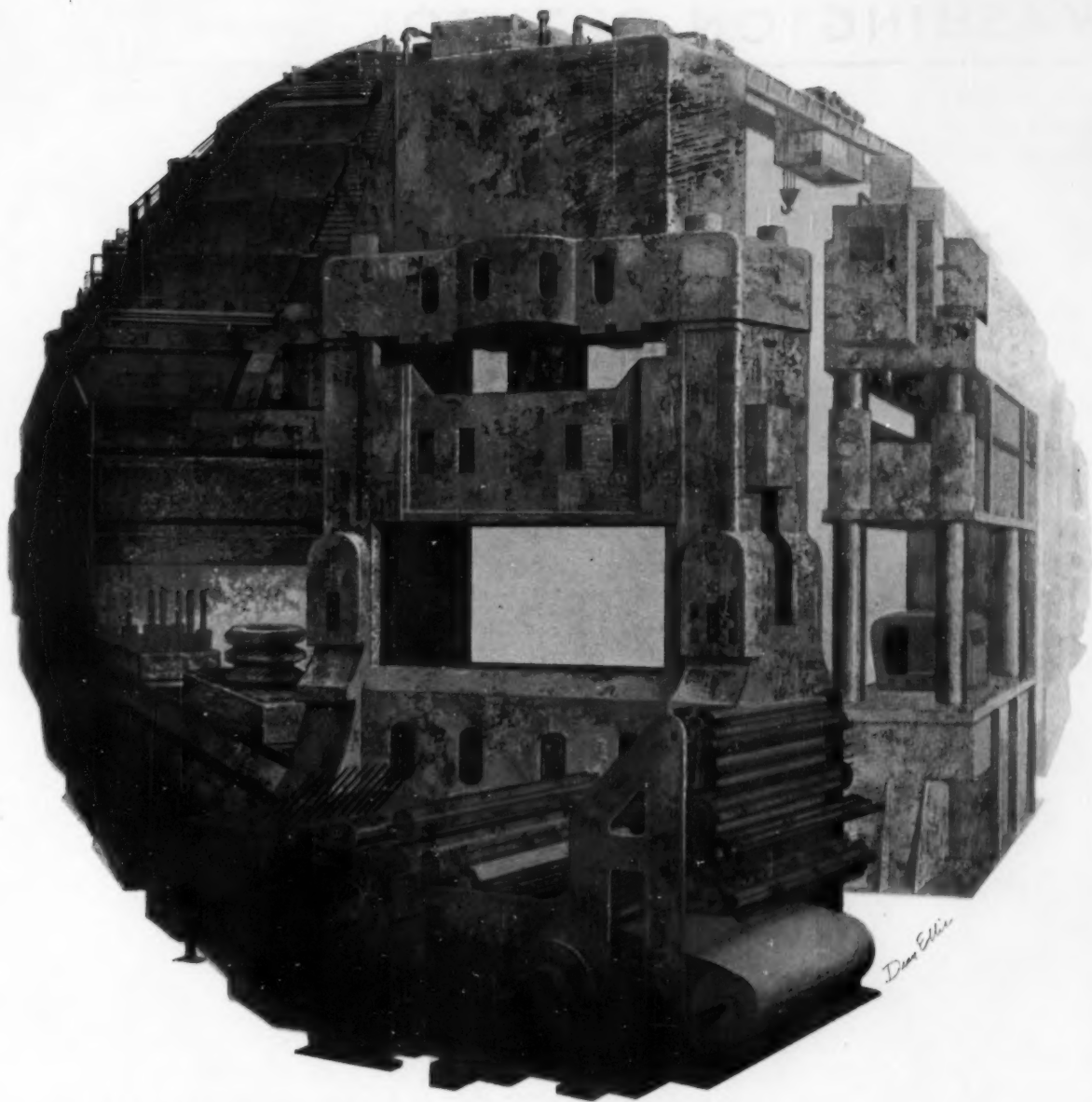
What did the U. S. do? After the war, the U. S. got out of the business of warmaking weapons. By about 1949 or 1950, U. S. spending for defense was down to some \$13-billion. Then the President was Truman and the Defense Chief was Louis Johnson. In their economy drive, the ballistic missile was sort of forgotten.

So, the U. S. program started from behind. It was not until after Korea that much attention was paid to missiles and rockets (BW—Oct. 19 '57, p66). Then the efforts made were dispersed among the Army, Navy, and Air Force. There was no concentrated effort to build one weapon and a good one. The result is that today the U. S. is behind, struggling to catch up.

The Eisenhower Administration will get the blame, rightly or wrongly. In the past year, especially, it has allowed economy to reduce funds for basic research. These cuts played little or no part in the fact that Russia is surging ahead. But they are fresh in the public mind. The fact that we failed in the late 1940s can't be expected to cut much political ice today.

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You will hear a lot about scientific education—federal aid to smart boys and girls who want to go into this field.

Congress probably will vote assistance. The Administration will have its own program, and the Democrats will offer theirs. Out of it all, you probably will get a Washington-financed scheme. But keep in mind that this is a long-range program. It will contribute little or nothing to closing the gap with Russia in the next few years.



IN THE WORLD OF MACHINERY:

what will they think of next?

Man's ingenuity knows no bounds. From familiar zippers to guided missiles, today's world teems with the active brain children of countless inventors and engineers.

The machines that make these marvels are themselves masterpieces of mechanical ingenuity and clever construction. To an ever increasing extent,

modern machinery depends upon individual components that give designers wider scope... through higher strength, greater precision, better quality, longer life. That's where Brake Shoe comes in. With high-alloy iron castings. Bronze gear blanks and bearings. Steel forgings. Plastic laminates. Friction materials. Castings that defy heat and corrosion,

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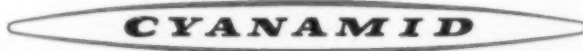
Is there a "Doctor" in the House?

Among these youngsters there may be a potential doctor of medicine, or an outstanding scientist, engineer, statesman or business leader. And to provide him, and other youngsters, with the opportunity for the needed education, America's already crowded colleges and universities must be expanded; new teachers found and trained.

Individuals and business organizations are helping to meet this challenge by giving aid to educational institutions. American Cyanamid Company, through its aid-to-education

program, provides a number of scholarships, teaching grants, research fellowships and direct contributions to colleges and universities. Cyanamid also makes available the skills of its scientific personnel in many of its communities to assist teachers and stimulate pupils' interest.

Thus Cyanamid is helping America develop its greatest resource—the young people who will be the leaders of tomorrow! American Cyanamid Company, 30 Rockefeller Plaza, New York 20, New York.



HELPING AMERICA MAKE BETTER USE OF ITS RESOURCES

In Management

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Two Executives Step Up the Ladder As Johns-Manville Top Man Steps Down

Last week, when 53-year-old Leslie M. Cassidy resigned as chairman and chief executive officer of Johns-Manville Corp., his right-hand man and the company's operating



head, 62-year-old president Adrian R. Fisher (picture), assumed the extra duties of chairman and chief executive. Meanwhile, the new post of executive vice-president has been created for Clinton B. Burnett, 49-year-old general manager of the packing and friction material division, and now Fisher's heir apparent.

Cassidy's resignation for health reasons breaks up a corporate team and management experiment that has been running since 1951. Cassidy, who came up via the sales side of the business, specialized in long-range planning for the company, set basic policy, and handled external relations. He kept out of day-to-day operations that were delegated to Fisher.

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Anaconda, American Metals Map Plans To Branch Out Into New Metal Fields

Two major nonferrous metals companies last week sent shoots out into new fields. Anaconda Co., one of the world's largest copper producers, announced it is moving into iron ore. American Metal Co., Ltd., a leading custom smelter of nonferrous metals, will merge with Climax Molybdenum Co., largest free world producer of molybdenum, an alloying metal used in steel production.

Anaconda has bought, through a Canadian subsidiary, a sizable deposit of low-grade ore in Ontario, Canada, north of Lake Superior. Production plans have not been fully worked out, but the company expects to be able to produce up to 2-million tons of rich concentrate annually when the new site is developed.

American Metal already has copper producing facilities in Africa; mines, smelts, and refines lead, zinc, and silver; and sells nonferrous metals for itself, Cerro de Pasco Corp., and Consolidated Mining & Smelting Co. of Canada. After the merger with Climax, the new company, which will be called American Metal Climax, Inc., will also have what are probably the largest deposits of molybdenum in the western world with known reserves for up to 50 years at current rates of production;

MORE NEWS ABOUT MANAGEMENT ON:

- P. 60 New Directions for A. V. Roe, Canada's New Industrial Giant

substantial amounts of tungsten as a byproduct; uranium and vanadium mines and processing facilities; and sizable oil and gas investments.

• • •

Thrift Pays Dividends in Prizes For Glidden Division Managers

Tight money kicks off a new kind of contest at Glidden Co., big paint maker and food processor, for the best utilization of capital.

The contest, open only to division managers or their equivalents, offers a first prize of \$4,000 net after 18% withholding tax, on top of whatever bonus would normally be in the works. To win, the division manager has to show the greatest reduction in inventories and receivables, while at the same time increasing sales and profits. Dwight P. Joyce, Glidden president, believes that, while a division manager cannot control general economic conditions, he can and should tighten up on current assets—cash, receivables, and inventory—to improve his unit's performance.

Judging will not be based simply on improvement in fiscal 1958—the manager must also have done a good job of conserving capital in 1957, to impress the judges with his 1958 record. Prize money will not be divided with key people who help in winning it—but these other executives will “get special consideration when bonuses are awarded.”

• • •

Air-Way Hangs “For Sale” Sign On Toledo Vacuum Cleaner Plant

This week Air-Way Industries, Inc., put up for auction its vacuum cleaner production equipment and 200,000-sq.-ft. Toledo factory. But the company denied it's going out of the business. “We are very emphatically in the sweeper field today and intend to remain in it,” says a company officer. “In fact, we now have a new model under design we hope to market soon.”

Three years ago after a proxy fight, industrialist Edward Lamb took over Air-Way, once exclusively a manufacturer of vacuum cleaners, and joined it to several other companies in his stable. However, when the sweeper division ran into sales and management trouble and almost drowned under inventory, it began losing money. Production was slowed and finally halted.

Now, despite sale of the plant, Air-Way plans to stay in business by having an outside supplier make sweepers. According to spokesmen, eventually it may even set up sweeper production in one of its other subsidiary plants. Meanwhile, the company has been busily lining up franchised distributors to replace the branch managers it previously used for sales.

Young Company on the Way Up

In 12 short years, Avro has grown from a fledgling aircraft maker into Canada's No. 3 corporation (map, below).

Sir Roy Dobson and Crawford Gordon (picture, right) are chairman and president, respectively, of a company that 12 years ago didn't even exist—A. V. Roe Canada, Ltd. As recently as two years ago, Avro was a one-product aircraft company dependent on defense business. Today it is a complex of 44 companies with 50,000 employees and sales in the \$450-million-a-year range. And Dobson and Gordon intend to make it the biggest factor in Canadian business.

A full half of Avro's bulk comes from a recent acquisition. Just last month, it gained 77% control of one of Canada's largest industrial companies, Domin-

ion Steel & Coal Corp., Ltd. (Dosco), the third biggest Canadian steel producer and a diversified holding company in its own right.

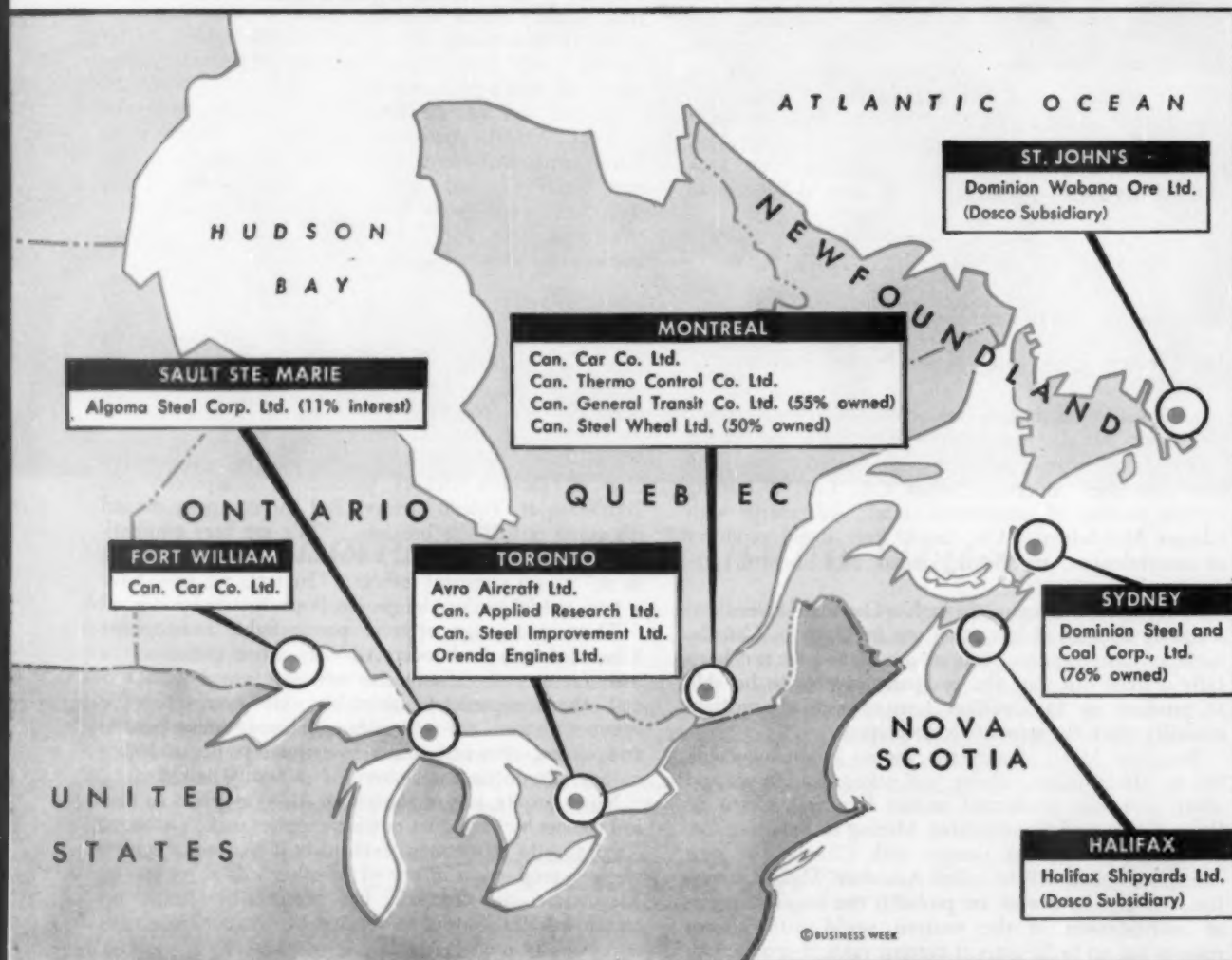
• **Big Three**—As a result, Avro is now among the top 80 companies in North America, the top 100 in the world, and the top three in Canada. In its homeland, it is bested only by the vast Canadian Pacific Ry. Co. and by Aluminum Co. of Canada, Ltd., whose assets and profits are bigger.

The company came into being because Canadian pride demanded the creation of a national aircraft industry and because the right man—Dobson—realized this at the right time—1945. Dobson, persuasive and energetic, almost literally talked Avro into existence and guided its early course. Under him, the company grew on Canadian government funds and a nucleus of engineering talent imported from England, but it spread out of its aircraft rut be-

cause Gordon—who became president in 1951—had a sharp eye for bargains, a dread of depending on just one customer, and no evident worries about his ability to run a vast and complex empire.

Avro started as a 100% subsidiary of the Hawker Siddeley Group, Ltd., of England, a combine of aircraft and engineering companies that ventured into Canadian aviation, plowed the profits back into the deal, and even returned to place more money. Hawker Siddeley kept the company entirely to itself until 1956, when it bowed to Canadian feelings of nationalism and made a public offering of stock that reduced its holdings to 84%. When the deal with Dosco is complete, the figure will be somewhere between 57% and 60%, because of the stock exchanges involved.

• **Line of Goods**—Once purely a military contractor, Avro is now so diversi-





AS INSURANCE against ups and downs in aircraft, Sir Roy Dobson (left) and Crawford Gordon are pushing Avro into new fields.

Hawthorne Paper announces a
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DIRECT mill-to-printer prices! **DIRECT** mill-to-printer delivery!

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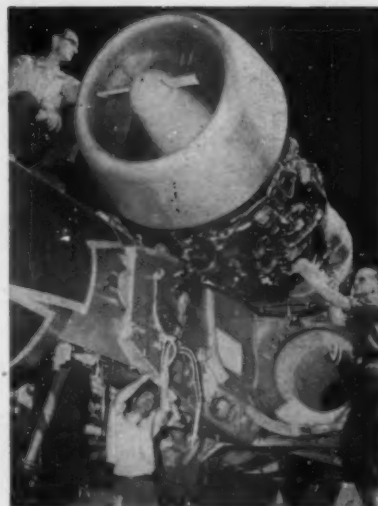
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JET ENGINES made by Avro's Orenda Engines, Ltd., are touted as the best in West.

fied that 70% of its business is civilian.

However, it's still in aircraft and jet engine production in a big way. So far, it has turned out at least 600 CF-100 long-range interceptors for Canada and other NATO nations. Its newest plane, the developmental Avro Arrow, is a delta-winged all-weather interceptor claimed to be one of the world's hottest, and its new Iroquois jet engine, a monster with 20,000 lb. of thrust, is reputedly the best in the West. Curtiss-Wright Corp. has taken out licenses to make it in the U.S.

In other, newer fields, Avro now makes electronic gear and aerial mapping equipment, steel and alloy castings and forgings, railroad rolling stock, trucks, and buses. It owns 11% of Algoma Steel Corp., Ltd., Canada's No. 2 steel producer. And by taking over Dosco, it acquired a fully integrated steel mill, important ore sources, shipyards, electric power stations, a private rail line, a bridge building company, numerous steel forming concerns, extensive coal mines, and even a number of hotels.

• **Major Factor**—Avro, as a result, is now a major factor in Canada's defense, transportation, and steel industries. Gordon was looking forward to this when he took the presidency in 1951. His Hawker Siddeley backers didn't originally anticipate such moves, but they have since become enthusiastic, for two reasons:

• They guard Avro against fluctuations in the aircraft industry—or a sudden technological change.

• They make it possible for Hawker Siddeley, hard hit by Britain's recent defense cutbacks and emphasis on missiles (BW—Apr.13'57,p48), to pour its available capital into a relatively safe growth area. It put \$16-million in 1955 and \$20-million this year into the Avro

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Act now to make sure of Ford's terrific savings on 1958 Heavy Duty trucks over many competitive models. Prices undoubtedly will go higher in the next 60 days.

And, Ford Heavies for '58 offer you more than initial savings. Many new product developments are designed to further reduce running costs. New cylinder heads, pistons, intake valves and camshafts are a few of the "302" and "332" V-8 advances that make these hefty performers even more durable. Versatile transmissions like Transmatic drive* and the 8-speed Roadranger* also help you save more with a Ford truck.

You save on replacement parts, too! Ford's suggested list prices on typical "big dollar" items, as shown below, are usually much less than those of the other truck makers.

*Extra cost options

Look at these typical examples of savings†
compared with those of other leading truck makers

TYPICAL "FIRST COST" SAVINGS

CONVENTIONAL	TILT CAB	TANDEM
Ford F-800.....\$5,000.00	Ford C-800.....\$6,019.00	Ford T-800.....\$ 8,980.00
Truck I..... 5,656.00	Truck I..... 6,886.00	Truck I..... 9,354.00
Truck W..... 5,628.00	Truck W..... 6,398.00	Truck W..... 10,089.00
Ford saves you up to:....\$656.00	Ford saves you up to:....\$867.00	Ford saves you up to:....\$1,109.00

TYPICAL REPLACEMENT PARTS SAVINGS

PARTS ITEM	SHORT BLOCK ASS'Y.	CRANKSHAFT	CLUTCH DISC
Ford 332 HD V-8	\$ 430.00	\$ 97.00	\$22.00
Truck I V-8	1140.00	192.00	56.00
Truck W Six	1146.00	204.00	38.00
Ford saves you up to:	\$716.00	\$107.00	\$34.00

†Based on manufacturers' suggested list prices, including federal excise tax. Truck prices are with equipment comparable to Ford Standard equipment. Destination charges from manufacturers' plant, preparation and conditioning charges, state and local taxes are extra.

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America's lowest-priced Tilt Cab line.†
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You'll find them "accidentally" whittling away at profits in many ways. Check your own operation...are reject rates reducible...have you need for continual rework...are you afflicted with machine downtime...how about scrap losses from defective materials, are they there, too?

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moral: Oil can keep things running smoothly, but it takes Magnaflux Test Systems to keep them running profitably!

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treasury—and it made these big outlays more willingly than the modest \$2-million it took to get the company started.

I. Canada's Pride

Indirectly, Avro is a child of World War II. During the war, the Canadian government undertook to manufacture British planes. When, in 1943, the government-owned Victory Aircraft Ltd. near Toronto produced the first of 422 Lancaster bombers made in Canada, Dobson crossed the Atlantic for the occasion.

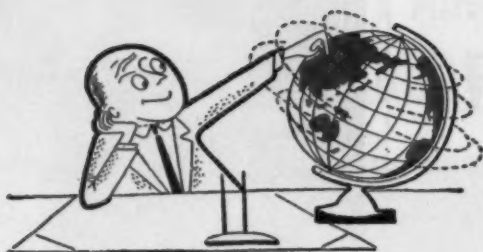
For Dobson, rough-spoken, ebullient head of A. V. Roe, Ltd., of Manchester, England, and a Hawker Siddeley director, had developed the Lancaster. Dobson is not at all like the stereotype of the reserved English executive. A short, heavy-set bull of a man, he grew up in the aircraft industry, where he got ahead by sticking his neck out to prove he was right.

• **Up the Ladder**—For instance, Dobson joined the British A. V. Roe in 1914 as a draftsman, became plant manager in 1919, and in 1921 defied top management to keep the company in aircraft. At that time, A. V. Roe had just sold all its aircraft equipment, but Dobson was convinced he could win government contracts. So he bought \$45,000 worth of production gear at an auction and had it installed in the company's partly empty Manchester plant after hours. A few days later, when an order for a fleet of trainers arrived, the plant was ready for work. And for his services in obtaining the equipment, Dobson charged Avro a 10% commission.

The Lancaster bomber was also developed in the face of official disapproval. During early World War II, Avro made the Manchester, an underpowered, ineffective two-engine bomber. Ignoring explicit government orders to the contrary, Dobson added two extra engines to a modified Manchester frame and produced a plane that could outrun a number of the current fighters. Outraged officialdom cried "foul," but they were forced to accept the plane. It turned out to be an RAF workhorse and 5,000 were produced.

• **Into Canada**—Dobson's 1943 visit to Canada intrigued him with bringing plane production to the dominion. After the war, he alternately bullied and cajoled his fellow directors at Hawker Siddeley into anteing the \$2-million to take over the Ontario plant where Lancasters had once been made. So in 1945 A. V. Roe Canada, Ltd., was organized.

It was a good deal for all concerned. The Canadian government was happy to be rid of a war surplus plant and to encourage a new industry; so it turned



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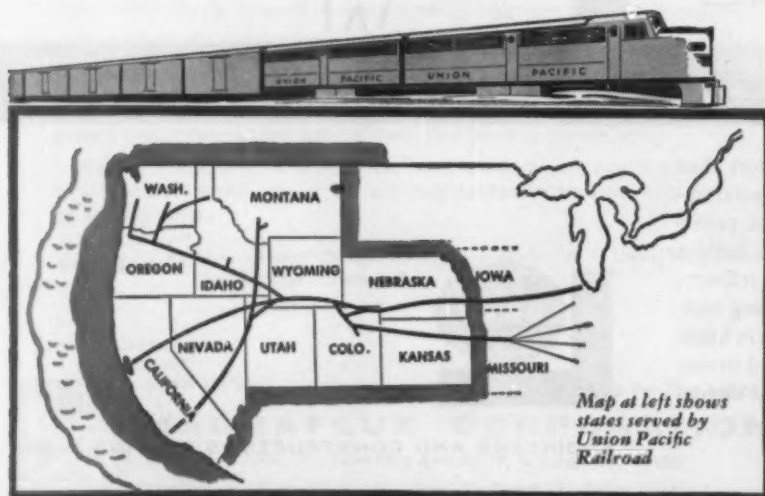
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DROP HAMMER, Canada's biggest, makes forgings at Canadian Steel Improvement.

over the facilities at a low price. And to make the bargain even sweeter, it rented all equipment and inventory on hand to Avro, with the rent to be paid out of profits.

At first, Avro had only 300 employees—and no business. The Canadians didn't think they could afford their own aircraft industry. But stirred by Air Force pleas they listened with growing enthusiasm to Dobson's vision of an industry geared to produce long-range interceptors for defense of the country's vulnerable northern frontier.

Within a year, Avro was Canada's chosen instrument for building national airpower. In 1946, it absorbed Turbo Research Ltd., a government outfit organized in 1943 to develop a jet engine. The government closed the company down, and Avro hired the engineers. In the same year, the government provided four development contracts—two for jet engines and two for aircraft.

• **Success Story**—With government money, and design talent imported from Britain (60% of Avro's top development staff is English), the company went right to work. In 1948, it produced the Chinook, a small experimental jet engine, and in 1949 the Orenda, a production model eventually installed in more than 1,000 planes. In 1949, Avro also developed a jet transport.

The transport—the first jet transport in North America—was built and flown, and the Canadian government submitted a provisional order for 20. Several U.S. airlines were reportedly interested, too. But it never went into pro-

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Any repetitive push, pull or lift movement now done manually can be performed infinitely faster, safer, and at lower cost with this unique, electrically-controlled Bellows Air Motor. The range of work it can do is limited only by the imagination of the tool designer or production engineer.

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The Bellows Air Motor gives you an entirely new conception of the productive possibilities of air power. In the thousands of manufacturing plants where it is in use, it is establishing daily new records for cost reduction and improved productive efficiency. In metal working, in plastics, in woodworking, in any industry you can name, these versatile power units are sparking the imagination of cost conscious production men looking for ways to do old and new jobs better.

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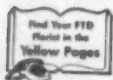
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duction. The Korean War, says Avro, killed the project.

But the war vitalized Avro's jet engine business and its long-range fighter, the CF-100, and shot the company into the chips. Once dependent on research and development contracts, it became a volume producer—first of engines and then of planes.

II. The Ledger Books

This is not to say that Avro suffered financially as a development company. It was paid a healthy profit for experimenting on government projects with government money. U. S. development companies average close to a 2%-3% return on development work, but Avro—on a cost-plus basis—often netted as much as 7% on a contract.

During this period, of course, Avro was privately owned, and no figures are available on profits before 1952. Outside estimates of its development contracts run from \$20-million to \$80-million—and the truth is probably near the top of that scale, with tooling costs rising even higher.

In any event, by 1951 Avro's retained earnings were certainly quite respectable. From then on profits rose rapidly—from \$3-million in 1952 to \$5-million in 1953, \$8-million in 1954, and \$9-million in 1955. By this time, the company was flush enough to buy other properties. The money for the purpose came from its own earnings and from the \$40-million Hawker Siddeley has sunk into the venture.

III. Enter Mr. Gordon

In 1951, however, diversification was still in the future. Dobson was still running the company from England (via transatlantic calls, cables, and flights), and he was worried on two counts: how to expand Avro to meet the demands of the Korean War and how to find insurance against future fluctuations of the aircraft industry.

Dobson needed a top man, on the spot in Canada, able to get production out of the labs and shops—and to ride out any future slumps. In 1951, he found the man in Crawford Gordon, Canada's coordinator of defense production under Defense Production Minister C. D. Howe. In his government job, he had strong opinions of what was wrong with the aircraft companies. He disapproved of their utter dependence on government business, and he needledd them over shortcomings. All this Dobson liked, and he lured Gordon into Avro's presidency.

• **New Broom**—The first thing Gordon did was to reorganize the company. He established two separate divisions, one for aircraft and the other for engines. Then for three years he concentrated



Chemicals: Heavy, Aromatic and Agricultural; Plasticizers, Filter Aids
Metallurgical Products: Ferroalloys, Pig Iron, Foundry Coke

Fuels: Coal, Coke, Charcoal, Charcoal Briquettes

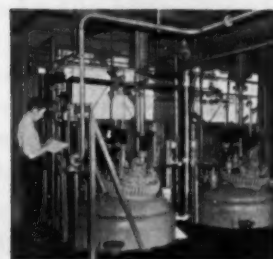
Building Materials: Mineral Wool Insulation, Perlite Lightweight Aggregate, Acoustical Plaster, Cast Iron Soil Pipe & Fittings, Wood Preservative



A major part of Tennessee operations is conversion of coal from TP&CC mines to coke, chemicals and other by-products vital to industry. Here glowing coke is being "pushed" from one of 44 coke ovens.



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Expansion also keynotes Tennessee's chemical operations. Modern facilities, including two new production units, are employed in the manufacture of Benzoflex plasticizers and other aromatic chemicals. Reactors shown are typical of glass lined equipment used throughout TP&CC plants to assure highest quality products.

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on production and in 1953 bought the government-owned jet engine plant for \$15-million. Then, in 1954, he revamped Avro again. This time, A. V. Roe Canada, Ltd., became a holding company; the aircraft division became Avro Aircraft, Ltd., the engine division Oreanda Engines, Ltd. Now Avro was ready to branch out.

It bought Canadian Steel Improvement, Ltd., a government-owned supplier of jet blades, that same year. And in 1955 it used \$16-million from Hawker Siddeley to buy the Avro equipment and a number of buildings previously owned by the government. Then, with cash from earnings, it made its first civilian purchase—Canadian Car & Foundry Co. Can Car had assets of \$36-million; Avro bought it for \$21-million.

Can Car—a producer of railroad cars, trucks, buses, single-engine planes, and steel castings—was netting only \$2-million on sales of roughly in the \$65-million. To jack the new acquisition up, Gordon hired a new president, Allan MacDonald, executive assistant to the president of the CPR and once also an aide to C. D. Howe. Under MacDonald, Can Car was split in 1956. The railroad car, truck, aircraft, and diesel engineering divisions stayed with the old company; the steel foundry division became a new company, Canadian Steel Foundries (1956), Ltd. Since then, Canadian Steel Foundries has gone 50-50 with English Steel Corp. to start another new company, Canadian Steel Wheel, Ltd., to make the steel wheels Canada now imports from England and the U.S.

In the meantime, Avro has spent a large part of \$19-million to modernize and expand Can Car. It expects the results to be an estimated \$80-million in business and a much better rate of return.

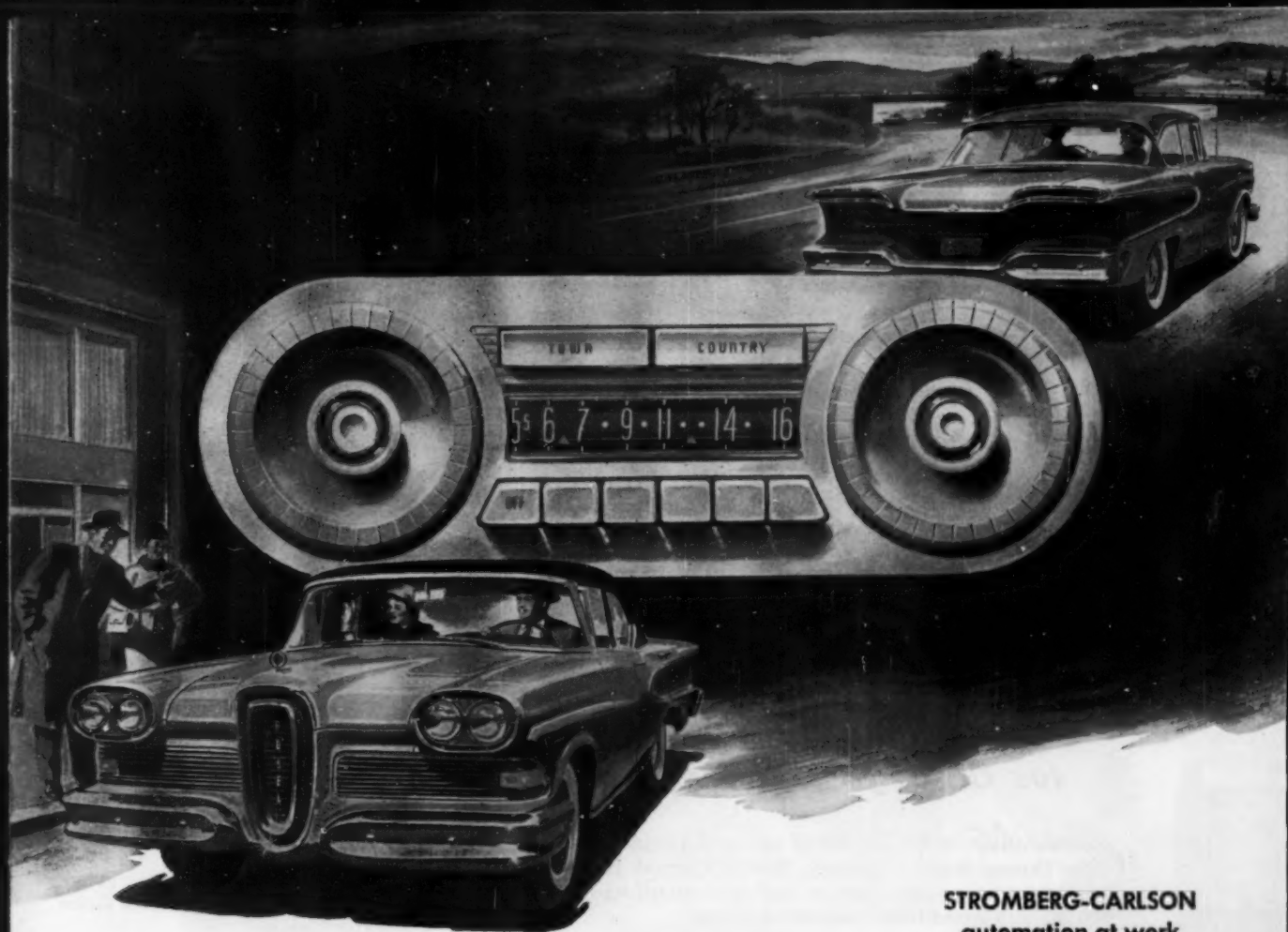
• **Banner Year**—But 1957 has been the year for Avro's most spectacular acquisitions:

• Early in the year, it picked up Canadian Applied Research, Ltd., an aerial survey and electronics equipment company.

• In May, it bought 11% control of Algoma Steel Corp. for \$18-million (BW—May 25 '57, p133).

• Now, for \$24-million cash and perhaps as much as 2.8-million shares of Avro stocks, it has annexed Dosco.

In the Dosco deal, Avro won control of a company with sales in the \$210-million range, profits of \$7-million, and book assets of \$151-million. And Dosco had just completed a \$100-million modernization program. One Dosco director who opposed the sale complained that the company's Wabana ore reserves alone were worth more than the total Avro offer. But the majority of stockholders obviously favored the deal. In its



One of the "pluses" in the Edsel

The illustrations here suggest that pleasure cars, radios and a modern automatic production line have something in common.

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We have, for years, made speakers for Ford Motor Company's automobiles. While the new Edsel was still in the drawing-board stage, we were invited to submit our ideas of what a great new radio, in a great new car, should be.

Our specifications included: a *transistorized* power supply, to save space and minimize the effects of road shock . . .

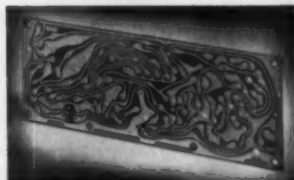
Town-and-Country tuning, optional for long-distance drivers . . . true high fidelity sound of traditional Stromberg-Carlson quality . . . and production by our time-saving, cost-reducing *automation* methods.

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flowability IS THE SECRET of successful cold heading at the Dorson Screw Company, 2509 W. Cermak Road, Chicago, where unique fasteners, as well as standard screws have become high-speed mass production items.

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own industry, Dosco is considered something of a sleeping giant, and the feeling was that aggressive Avro might wake it up.

• **Question**—Why did Avro buy into Algoma when the Dosco deal was just around the corner? The answer is that no one could see around the corner. Last spring, Avro figured buying Algoma was the only way for it to integrate backwards into steel production. Then, when Dosco became available, Avro grabbed it. The chances are that Avro would now like to get out of Algoma. Although it's a sound investment, it represents \$18-million that would be handy elsewhere. But under the terms of the purchase, Algoma isn't likely to be unloaded, for a number of years at least.

IV. Present Problems

"Avro is now in the three basic areas we set out to get into: defense, transportation, and steel," says Gordon. And despite talk of more expansion, for a while the pace will probably slacken. Management needs time and talent to overcome some of the present problems.

First of all, top management is spread a little thin. Gordon now has two jobs—the presidency of Dosco as well as his regular duties. So does Can Car's MacDonald—he has been appointed executive vice-president of Avro, and he will shepherd both Dosco and Can Car now.

Then, too, Avro has consciously acquired companies that have been relatively slow of foot. It will take plenty of management time and patience to get them moving again. Dosco, for instance was self-satisfied before Avro appeared, and earnest missionary work will be needed to make any changes.

• **Order Trouble**—Business prospects are another question. A few years ago, Can Car enjoyed an order backlog; now the railroads are cutting back their requests for equipment. And the aircraft business, as in the U.S., is uncertain. Avro still has theoretically firm orders for its CF-100 fighter into 1959, and the Avro Arrow interceptor is potentially a replacement for the CF-100. Avro's Iroquois is a "hot" jet engine, and the company is at work on a secret flying saucer-type jet for the U.S. Air Force. But the days of the manned fighter are near an end.

Missiles are starting to take over the skies, and Avro doesn't make missiles—at least not publicly. Currently, Canada must decide whether to use somebody else's missiles or make its own—and Avro must await the decision. Luckily, thanks to its bond with Hawker Siddeley, it has an outside track for borrowing design talent, information, or licenses on missiles from the British. **END**



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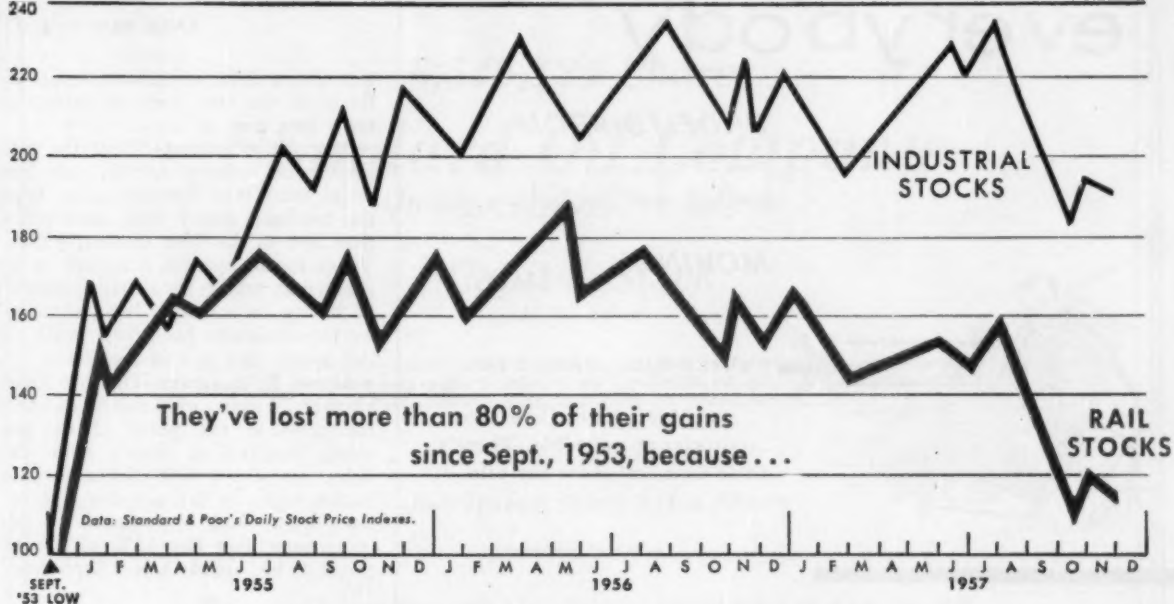
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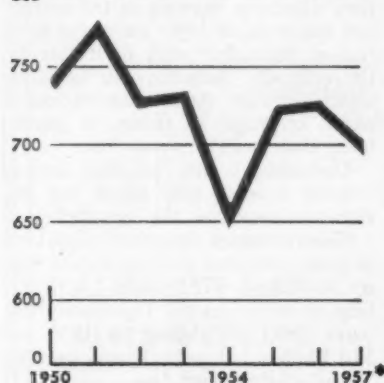
THE RAILS: Number One Market Problem Child

Sept. 1953 Low = 100
240



...For a long time, carloadings have been shrinking...

Average Weekly Carloadings (in thousands)



Data: Moody's; Assn. of American Railroads.

...And while rate increases have helped in keeping gross revenues up...

Yearly Revenues (in billions of dollars)



*BUSINESS WEEK Estimate

...These hikes have failed to offset traffic losses and rising costs

Yearly Net Income (in millions of dollars)



©BUSINESS WEEK

Their Future Looks Even Worse

For a year and a half, the prices of railroad stock have been soaring like a damp Fourth of July rocket. The upper chart shows their sinking trajectory; the bottom set of charts points out reasons for their poor reception at the stock exchange since spring of 1956; the unchartable future explains why they have recently fallen more shockingly than other stocks.

The stock market looks ahead, of course, and sets prices according to the future rather than the past. That's why last year, when carloadings were staging a modest comeback and rate increases were boosting gross revenues, analysts were gloomy.

"One of the stock market's lame ducks," a Wall Streeter called the rail group more than a year ago (BW-Aug.

11'56,p52). "With few exceptions, suitable only as temporary high-yielding speculative holdings during boom periods. And already long since selling at high enough levels."

This analyst has never had occasion to regret going out on a limb to warn his clients, for the rails have since skidded from lame-duck prosperity to a dead-duck slump. And Streeters in

everybody



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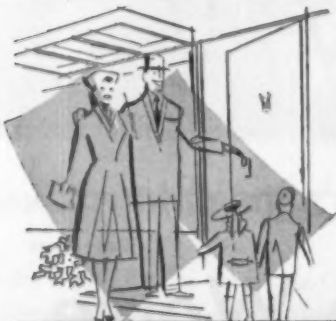
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go safer... go sanitized... go United



United VAN LINES, INC.

UNITED VAN LINES (CANADA) LTD.

"... rail stocks have lost about 82% of all gains since September, 1953 ..."

RAILS starts on p. 77

general see little investment future in them, in the true sense of investing, for a long time to come.

• **Speculative Interest**—About the only real recent interest in the rails has come, most Wall Streeters agree, from the fast-buck gentry and, more often than not, in the form of short selling. When buying appears, it is likely to be speculators taking their "rail gambles" by buying on a margin basis, shooting for the maximum percentage profit on the money they put in themselves.

• **Heavy Price Losses**—The top chart on page 77 shows what this bearishness has done to rail prices. Early this week, Standard & Poor's daily rail index was about 68% below its bull market high. In this nosedive, the rail stock group had been forced to disgorge something like 82% of all the gains it had made since September, 1953.

In contrast, the companion index for industrial stocks, despite all the recent wailing, was perched only 19% under its bull market high and had been forced to give up only 33% of its advance since September, 1953.

• **Business Not So Bad**—Judging by their disastrous showing in the market, you might think 1957 was going to be one of the worst years in history for the railroads. Actually, this is by no means the case. As the bottom row of charts on page 77 shows, it appears likely that in 1957:

Carloadings will average around 700,000 a week—only about 4% less than last year and the year before.

Gross revenues, despite the slowdown in general business activity, should edge up to around \$10.7-billion, with the help of rate increases. This figure compares with \$10.1-billion in 1955 and \$10.5-billion last year. It may even set a new all-time high.

Net income will dip to around \$765-million, compared with 1955's record-breaking \$928-million and last year's \$878-million. But even \$765-million has actually been topped only seven times in 28 years.

So it's clear that the plummeting of rail stock prices since May, 1956, isn't based primarily on 1957 earnings performance.

• **Discounting**—The explanation, of course, is that the market is fundamentally a "discounteer." Prices rarely follow the moment's trend in corporate earnings. Rather, they follow the longer-range prospects—six months or more—

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Shares. The offer is made only by the Prospectus.

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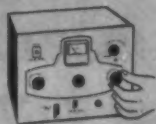


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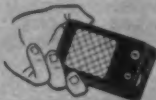
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that investors and traders foresee for each industry.

More than a year ago, Wall Street saw the clouds of a business downturn forming on the horizon. Most investors made up their minds that the railroads would be, as always since 1929, the first to be materially affected when any chilling winds started to blow. They acted accordingly.

• **Fight for Survival**—It's not surprising that the rails should be so vulnerable to changes in the nation's economic weather. Since 1929-30, their industry as a whole has been locked in a struggle for survival. It's fighting its war on two major fronts:

• Traffic that used to belong to the railroads has been steadily shifting to truckers, pipelines, inland waterways, and, to a lesser extent, airlines.

• Operating costs have been rising faster than operating revenues.

• **Lost Business**—Railroads have lost traffic—mail, express, and passengers—to buses, automobiles, planes, and trucks, but the losses of profitable freight have, of course, hurt most. They still have a big share of bulky long-haul shipments—ton-miles haven't dropped as much as carloadings in recent years. But their share of total intercity freight is still shrinking.

Last year, the rails hauled only 48.2% of such freight, compared with 49.4% the year before, 57% only five years earlier, and as much as 75% back in 1930. There's little question that this shrinkage is accelerating. In the three weeks ended Nov. 2, for example, carloadings by Class 1 carriers ran 12.3% below the same 1956 period and 12.9% below the 1955 period—even 1.1% below the level of recession-tinged 1954.

So the expected average loss of only 4% for the year's weekly loadings may underemphasize the latest trend.

• **Higher Costs**—The kiting of operating costs is equally depressing. Even before the latest pay rise of 12¢ an hour, including about 5¢ for cost of living, went into effect on the first of the month, straight-time hourly wages were running 185% above the 1941 average. Wages generally account for about 67% of rail operating costs. Materials and fuel, which make up another 20% of these costs, have risen in price almost as sharply.

Though you wouldn't think it from many comments you hear, most rail managements have been trying hard to pass the increased costs along. They have wangled permission for substantial hikes in freight rates and passenger fares. Because of competitive factors, the Class 1 railroads haven't always taken full advantage of these authorized increases, yet last year's ton-mile revenue of the group was 42% above the 1946 level.

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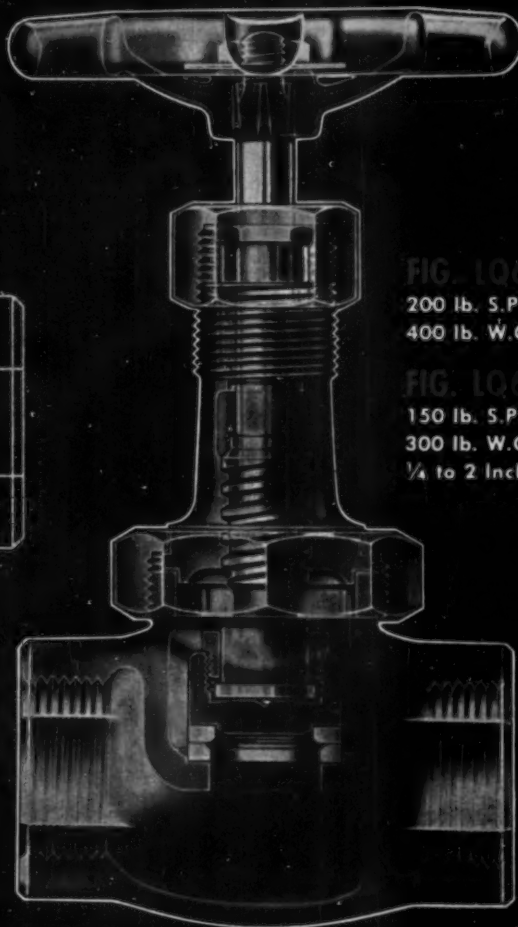
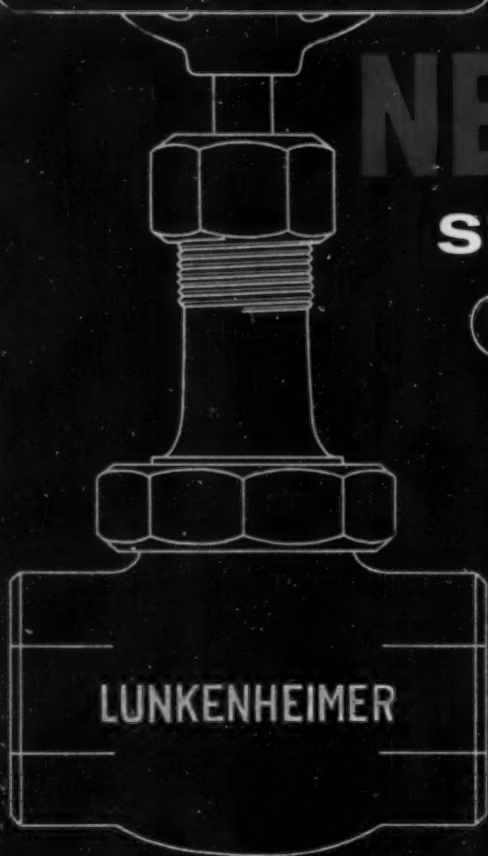


FIG. LQ600-200

200 lb. S.P.

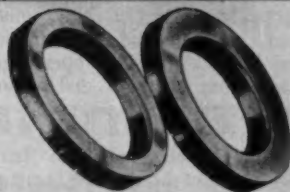
400 lb. W.O.G.

FIG. LQ600-150

150 lb. S.P.

300 lb. W.O.G.

1/4 to 2 Inches



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the war by the spending of more than \$14-billion on modernization, on top of the more than \$46-billion spent for routine maintenance. But not enough ground has been gained to cancel out the rise in costs. Last year, operating costs gobbled up 76.8¢ of each revenue dollar, compared with a flat 73¢ in 1939.

In the same period, the rails' important transportation ratio (the share of revenues absorbed by the out-of-pocket costs of running trains) rose from 35.5% to 38.3%. Since last year, things have gotten worse.

• **Pinched Profits**—Despite the gain in gross revenues, this year's monthly earnings through September exceeded the 1956 figure on only three occasions, and the 1955 figure only once. It's unlikely that much more than 7% of this year's revenues will trickle through to net income, compared with 8.3% last year and 9.2% in 1955. That would be the lowest profit margin since 1949.

Reach back to 1929 and the comparisons become even more odious. In that year, fixed charges ran about \$340-million higher and gross revenues about \$4.4-billion less, yet net income came out 14% higher than the predicted total for the rails this year.

On top of this, a sizable slice of recent annual profits has been what Wall Street regards as "of questionable character"—the tax saving made possible by accelerated amortization write-offs. Under Interstate Commerce Commission accounting rules the roads can use fast amortization in figuring taxes and ordinary depreciation in figuring earnings reported to the public. The tax savings aren't deducted from the published earnings figures, but Wall Streeters say they amounted to about 20% of reported earnings in 1955 and 1956. This year will be about the same.

• **Market Reaction**—It could be, of course, that the recent sharp sell-off has brought the rails generally down to a level that more than discounts whatever bad news may be in store. This could be true especially in individual issues, since obviously not all roads have the same prospects.

But you can't really tell. In late September, many traders felt that the rails' severe losses had dragged them finally into a "buying range," yet within a few weeks many issues had suffered additional losses between 20% and 50%.

That's why few Streeters are advising anything more than "fliers" in "carefully selected" rail stocks. As many see the picture, the rails may not have seen the worst of their troubles. A number of roads lately have decided to cut down or eliminate dividends, and some analysts think next year's Class 1 rail earnings may decline by another 15% or 20%.

Wall St. Talks . . .

. . . about cautious overseas investors . . . AT&T selling job . . . stocks and appetites . . . steel's skid.

Investors abroad continue cautious, too. In both Zurich and Amsterdam, advices indicate, much "smart" money is still being switched from stocks into bonds. What stock buying there has been lately has reportedly been "exceedingly selective."

Still very much a "selling job" is the current view of one of 1957's biggest chunks of corporate financing: the late-October offering of \$250-million AT&T long-term 5% debentures on a 4.9% yield basis. Due to the price resistance of many important institutional investors, over 60% of the bonds were still unsold at midweek. Underwriters, however, remain confident.

Sign of the times: A Manhattan hotel has quietly shelved a Stock Market Menu introduced two years ago featuring Street language and fractional prices. It was decided that diner appetites might suffer if reminded of recent "actual and paper" market losses.

Some Streeters are quite annoyed at Standard Oil (N.J.) officials. The latter's "mistake" in undertaking a huge stock financing operation at this time, they claim, is making an already generally weak oil group even weaker.

Steel production last week, some Street bears have been quick to advise clients, skidded to slightly under 2-million tons. Except for some strike-affected periods, they point out, that's the lowest weekly production total since early January, 1955.

Boardroom rumors: Howard Hughes is negotiating to buy Republic Aviation Corp. Boardroom habitués pay no attention to official Republic denials. . . . Look for news soon of a merger or important joint venture of National Supply Co. and Armco Steel Corp.

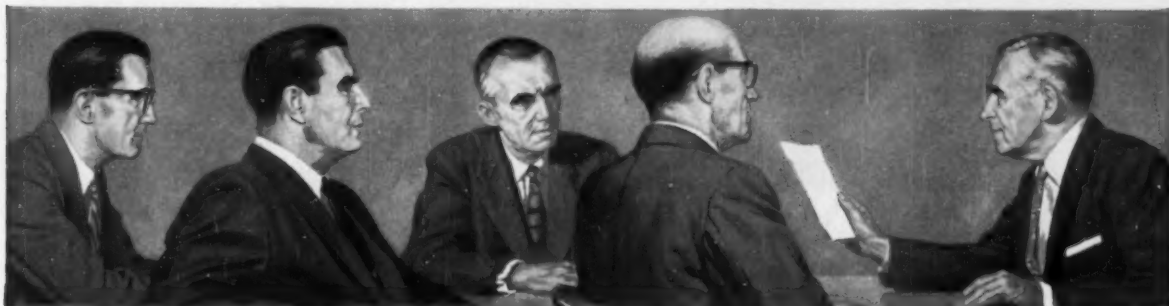
Market letter gleanings: "We see no grounds . . . for abandoning a cautious attitude." (Sutro Bros. & Co.) . . . "Continue a 50% liquid position in semi-investment and intermediate-term trading accounts." (Walston & Co.) . . . "Be contemplative rather than impulsive. . . ." (Josephthal & Co.) . . . "Continue . . . a . . . very selective approach in . . . purchases." (Hayden, Stone & Co.)



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What is its growth potential in the future? ...



What is the calibre of the management team? ...

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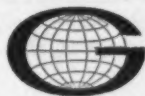
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Savings Banks . . .

. . . are invading the strongholds of commercial banks via personal loan and checking service routes.

Are savings banks edging into fields commercial bankers have long considered their domain?

That, in effect, was the question posed last week by the New York State Bankers Assn. to the State Banking Dept. and Federal Deposit Insurance Corp. The association asked the two agencies to rule on the legality of personal loan and checking services offered by mutual savings banks in New York City.

• **Competition**—Mutual savings banks, under law, may make loans to depositors in an amount not exceeding their total deposits, with the passbooks put up as security. Such loans have a legal limit of 90 days. But Brooklyn Savings Bank has extended the maturities of these loans by assigning them to Savings Bank Trust Co., the commercial bank that operates in behalf of the mutual banks. The depositor pays 5% simple interest on his passbook loan while receiving 3½% in dividends, compounded, on his savings. Net cost of the loan: less than 1½%. Commercial banks have long been making loans on savings bank passbooks. What Brooklyn Savings Bank is doing, then, is to compete headon with the commercial banks for depositors' loan business.

• **Second Front**—On another competitive front, Brooklyn Savings Bank moved to promote a check service for its depositors. Its Savings Bank Check Service is a copyrighted checking system that combines withdrawal forms and savings bank money orders in checkbook form. The depositor can make out a withdrawal slip, listing up to six tellers' checks or money orders.

Another mutual savings bank, Union Dime Savings Bank of Manhattan, is also promoting a checking service. This bank advertises that it will provide tellers' checks without charge in any amount to depositors for payment of household bills.

• **Poaching**—The commercial banks, of course, are unhappy over these forays into what they consider their province. However, the mutuals have been offering loan and checking services for many years, although they have just begun to promote them.

Most legal specialists in the banking field feel there will be no adverse finding by either the State Banking Dept. or FDIC. **END**



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Baiting the Hook for Industry

● Maine's new mortgage guarantee is latest of varied financial lures offered by industry-hungry states.

● They run the gamut from privately financed development groups to local bonds and direct use of state funds.

● Their spread still leaves a question: Is it this bait, or a state's market and labor setup, that really counts?

Maine late last month took a new tack in the perennial effort of states to attract factories within their boundaries through financial inducements. Its legislature enacted a guarantee of the state's credit for industrial plant mortgages—thereby implementing a constitutional amendment approved in September by Maine's voters.

But even in Maine there is serious doubt about how effective the new scheme will be; and around the country, there's little evidence of any inclination to follow Maine's example. Such schemes to put financial props under state industrial promotions have been multiplying in number and in variety in recent years. Maine's latest venture throws the spotlight back to the basic questions behind them all:

What good are financial inducements to industries? Do they add anything to the magnetic pull of a state's proximity to markets and labor—and can they overcome the pull of such attractions in another state?

• **What They Are**—The answers are somewhat obscured by the variety of schemes offered. These narrow down, however, to a few types:

• Ten states allow their municipalities to issue bonds—full faith bonds in Mississippi, Tennessee, and Louisiana, revenue bonds in the rest—for erection of new or expanded plants.

• Seven states, led by Maine, have development credit corporations in operation, employing private capital. Eight others have such outfits set up, but not yet active.

• Eleven states allow temporary local property tax exemptions.

• Several have local nonprofit corporations that help bring plants to their communities.

• Pennsylvania directly appropriates state funds for second mortgages.

• **Debate**—The debate over the whole idea—what good the plans are, and which works best—seems to grow hotter as the schemes spread. Some argue that a plant worth having is one that can find its own risk capital, that the kind you get with assistance is a plant

you'll regret. The opposing school retorts that many a good company, potentially beneficial to a community, simply can't arrange for its own needs.

If you grant that a potentially sound plant could require such aid, you find yourself right away in the middle of another wrangle: Is the aid up to government, whether state or local?

Here the opposition to expanding government's business functions plumps for business credit corporations, such as Maine pioneered in 1949, or private, local nonprofit corporations, which started even earlier in Pennsylvania.

The equally vocal advocates of government participation in industrial development have pushed through the plans involving municipal bonds, tax exemptions, direct appropriations—and now in Maine, FHA-type guarantees of mortgages.

In between these two extremes, Arkansas is trying to work out a compromise version.

• **Consensus**—In the welter of pros and cons, statistics to bolster either side are woefully lacking. But on the overall question of the value of any type of financial aid, the consensus of persons close to the picture is this: Even in states that give assistance of one kind or another, more plants are located without help than with help; but in a few cases, the assistance may make the difference between getting one or not.

In other words, a state's—or a community's—nearness to markets and labor seems to be the more compelling factor.

I. As Maine Goes

Maine seems to substantiate this. In 1949, the state set up the Maine Development Credit Corp. (BW—Jul. 4'53,p112)—and the idea spread later to four other New England states, New York, and North Carolina.

The Maine principle was this. Businesses that would benefit from new industry would subscribe to the corporation's common stock. Banks and other lending institutions would pledge to lend it funds for making its loans.

The corporation would make long-term loans for new or expanded plants, working capital, machinery and equipment. A manufacturer could borrow up to \$75,000, supplementing other capital.

• **Faltering**—In practice, Maine's attempt has been short of a smashing success. In eight years, total loans have reached only \$1.6-million—for an average of \$30,000 per loan. Bankers have been accused of trying to choke the corporation.

But according to M. Herrick Randall, its manager, the difficulty is simply not enough applications for loans.

Of its 50 loans, only six were to companies from out of state.

• **New Lure**—That fact is more a reflection on Maine's attractiveness to outside industry than on the business development corporation idea. The new guaranteed mortgage scheme is an effort to weight the balance a bit more against Maine's handicaps.

The idea is credited to a small-town banker disturbed by the closing of textile mills—Arnold Gellerson of the Piscataquis Savings Bank in Dover-Foxcroft. Democratic Gov. Edmund S. Muskie, perhaps seeing political advantage, picked it up, proposed it to the Republican legislature. Few spoke in opposition—it would have been like opposing progress. Capital observers speculate that perhaps few persons saw how far it could put the state in the lending business or involve state funds.

• **Setup**—The final plan adopted last month sets up a nine-man Industrial Building Authority, to be named by the governor. Through it, the state will insure mortgages up to 90% of the cost of new plants built by local nonprofit corporations and leased to manufacturers. These corporations would get the mortgages from conventional lenders, and either they or the manufacturer would throw in the equity. In case of default, the state would assume rental payments until a new tenant was found. Up to \$20-million in state bonds could be issued for this purpose.

How well the scheme will work depends on two things: whether anybody applies for such mortgages, and whether anybody will buy them.

Some Augusta officials note this: If a manufacturer borrows the maximum \$75,000 from that corporation, his borrowing costs for expansion would average out around the prime rate. The guaranteed mortgage scheme would cost him the prime rate, plus 1% for the new authority's costs.

Commercial bankers, privately op-



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How is a fair market value established?

from the CLIENTS' SERVICE BULLETIN
of The American Appraisal Company

Fair market value has been defined by courts and tax regulations as the price which a property will bring when offered for sale by a willing seller to a willing buyer. It is the usual premise for condemnation, purchase or sale, tax purposes, reorganizations, etc.

There are three approaches to the determination of fair market value. In most cases, all should be employed and the results reconciled through judgment and experience. They are:

1. The "sound value" approach, based on the cost of reproduction of improvements less observed depreciation and obsolescence plus the fair market value of the land.

2. The comparative approach, involving sales and asking prices of similar properties.

3. The earnings approach, involving the capitalization of estimated net income.

All these approaches should be explored by the appraiser commissioned to establish fair market value.

The value of property will normally be limited by cost of reproduction. Consideration must also be given to the price at which comparable properties may be purchased on the open market, and to the price on which it may produce a reasonable return.

For commercial properties, apartments, office buildings, hotels, all three approaches may be used effectively. But for industrial properties, it may often be impossible to obtain authenticated sales data on similar properties. Sales of specialized industrial plants, detached from going business value, are rare indeed. In such cases, the appraiser may have to formulate his conclusions on the basis of the depreciated values, supplemented by a consideration of earnings.

The earnings approach cannot be ignored. Even in the case of properties with no history of earnings,

there may be potential earnings capacity. If none can be established, the property is worth only a liquidation price.

The determination of fair market value, involving the "willing buyer, willing seller" concept, requires careful preparation. Since findings are frequently subject to review by a court, commission or arbiter, the appraiser must have ample supporting detail to justify his conclusions.

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posed to the guarantee, may balk at buying the mortgages. But a savings banker thinks that savings banks will go in—they buy industrial mortgages, and a state guarantee is all to the good.

II. Better Luck—and Worse

Some other states that copy Maine's business development corporation are understandably better off.

Populous Massachusetts can do some pointing-with-pride as far as figures go. Its Business Development Corp., started in 1954, has approved 94 loans for \$10.6-million, has actually disbursed \$6.1-million; and of this, \$4.2-million is now outstanding. It has paid-in capital of \$773,510. It still has about \$1.4-million in loanable funds.

Massachusetts' loans run to larger sums than Maine's—up to \$800,000—and have gone into metals, electronics, plastics, foods, and provided working capital, moving expenses, machinery, and second mortgages for construction.

Yet the corporation has been accused of taking too little risk. Its V.P. Francis P. Brennan replies that it has taken only concerns that normal channels wouldn't provide with capital.

Kurtz M. Hanson, a member of the MBDC's executive committee and president of Champion-International Co., notes that the Massachusetts corporation on two occasions made loans requested on a speculative basis for the construction of all-purpose industrial plants before any tenants were on the scene who might lease them or any buyers were found to buy them. Five times it made loans to local industrial development corporations.

The New York corporation is young, but thriving. Formed only last year, it already has \$12.6-million pledged to it by lending institutions, and has approved loans totaling \$6.8-million. Its capital is \$429,000. New York loans, too, run to bigger sums than Maine's—up to \$250,000—but so far not so high as Massachusetts has gone. New York, however, has branched out into such fields as historical sites and resort hotels—to help the tourist industry.

The state has already had one default—on a \$250,000 loan. But the loan was secured by \$381,000 in assets.

- **Earthbound**—It takes more than just a law and a set of rules to get a development credit corporation into high gear, however. Wisconsin is an example.

The state had such a corporation on paper, but it almost died before really coming alive. The Wisconsin Development Credit Corp. needed \$25,000 in capital before it could operate. Until a last-ditch meeting last week, only \$14,000 in stock had been sold. Then Chmn. John Stauber announced he would buy the final \$5,000 worth if

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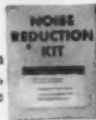
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the others put up \$6,000. They did.

The \$25,000 will allow the corporation to borrow \$250,000 from banks to lend to industries, and Secy. Rolland Berger said he had informal applications from prospective borrowers for \$1-million, but so far banks only have pledged \$216,500 in credit.

The corporation was proposed by the Wisconsin Bankers Assn. but, explains Berger, big banks have been reluctant to come in because the smaller banks, who dominate the association, were approached first.

Pres. Eliot Fitch of the Marine National Exchange Bank says WDCC is "a lot of noise and thunder and doesn't mean a darned thing."

• **Political Football**—In the case of Pennsylvania's direct use of state tax funds, the question is not whether the plan will be born, but: How long will it live? Its fate hangs on a battle between a Democratic governor and a Republican legislature.

The Pennsylvania Industrial Development Authority idea got going in 1955, when Gov. George Leader asked \$60-million for a six-year program to provide jobs in surplus labor areas (notably the anthracite country). He got \$5-million, and the authority set up shop last year. This year Leader came back for \$5-million more, got \$3-million.

In areas of substantial unemployment, the authority will take a second mortgage for 30% of the cost of a new plant at a minimum 2% interest. Lending institutions put up 50% on a first mortgage basis, and the community must raise 20% on a third mortgage. So far, the authority has lent \$2.3-million, has another \$1.9-million waiting disbursement, plus applications for \$870,000. Biggest deal was for a \$2.5-million Wilkes-Barre plant for Eberhard Faber Pencil Co., which moved its Brooklyn operations there.

The Pennsylvania legislature meets next two years hence—and Leader cannot succeed himself in 1959. What happens to appropriations requests for the authority that year will tell the story of longer life or quick death.

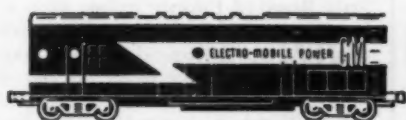
III. Grass Roots Approach

In contrast, Mississippi's plan of using local government credit seems to have an assured future. Mississippi pioneered the idea in 1936 with its noted BAWI (Balance Agriculture With Industry). The program has won a number of plants—about one out of every five that have come to the state. Last week Gov. J. P. Coleman convened a special legislative session to write a new constitution in which BAWI would be incorporated.

Under BAWI a county or city can issue (outside its debt limit) 20-year, full faith bonds up to 20% of assessed



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valuation. The State Agricultural & Industrial Board screens a company's financial statement, grants the community a certificate of convenience and necessity. In the local election to approve the bond issue, at least 51% of the voters must vote, and of those voting two-thirds must approve. Of 147 issues through the years, only two have failed—none in recent years.

The local government gets a contractor to build the plant. The manufacturer makes monthly payments (only two have defaulted).

Henry Maddox, director of the A&I Board, says companies sometimes use the scheme to test their welcome—then pay in full. After West Point (Miss.) voters approved bonds for a Babcock & Wilcox Co. plant, the company paid for the election as well as the plant. Cooper's, Inc., underwear manufacturer, paid Belzoni, Miss., the full \$300,000 plant cost on dedication day.

Maddox finds the full faith bond a competitive weapon against, say, Alabama, which only allows revenue bonds. Revenue bonds are harder to sell (and in New Mexico, the courts found them unconstitutional.)

Louisiana and Tennessee have used full faith bonds less widely. Louisiana has made a big play with property tax exemptions, but a 1953 study found that very few manufacturers came because of them primarily.

IV. Arkansas' Middle Way

Since sentiment in Arkansas is against depending wholly on government, and private funds are somewhat limited, it is piecing together a financing program that combines both.

Its original 1955 law permitted the State Board of Finance to buy 40% of bond issues sold by local, private development corporations. (Localities must now buy 25%.) The board ran out of funds, and this year the legislature gave it \$2-million, which can be replenished by having the teachers retirement board buy bonds from it. The legislature also created the Arkansas Industrial Development Finance Corp. to buy these bonds and sell up to \$5-million worth to the state.

This corporation is to have \$100,000 in non-dividend voting stock bought by businesses, and \$900,000 in non-dividend preferred stock bought by big companies such as utilities. Last month, at an organization meeting, the utilities balked. Gov. Orval Faubus made a strong pitch, stressing that AIDFC would create jobs and prevent loss of population, and adding: "When a citizen moves out, you lose a customer and I lose a vote, and that's important to me."

The utilities were asked to decide by late December. **END**



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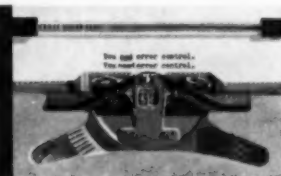
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In Regions

• • •

Cleveland and Houston Move to Follow Miami Road to Metropolitan Rule

The building-on-the-old-foundation method of providing needed metropolitan areawide services—that is, by reorganizing an existing county government—seems to be gaining over the start-from-scratch method of creating a whole new setup. The reorganization pattern began in Miami; now similar moves are afoot in Ohio and Texas.

- Ohio voters have agreed to simplify the procedure whereby counties may adopt charters. Cuyahoga (Cleveland) County may be first to use it.

- A study commission in Harris (Houston) County advocated county home rule.

In Ohio, this was the old situation: Counties could adopt a charter by obtaining approval of a majority in (1) the county, (2) the county's largest city, (3) the county outside the largest city, and (4) each of a majority of municipalities. The fourth requirement killed a county charter effort by Cuyahoga in 1935.

The new amendment drops this last provision. It won by just less than the margin of 40,000 votes that Cuyahoga gave it. Only 20 other Ohio counties, out of 88, went along.

While all Ohio counties with more than 500,000 population may benefit—including also Hamilton (Cincinnati) and Franklin (Columbus) Counties—Cuyahoga seems to be most eager. Already there is speculation a county charter proposal will go on the May ballot.

In Texas, the Harris County Home Rule Commission found county home rule laws unworkable and suggested an amendment to make them workable. The staff study, made by Lee S. Greene of the University of Tennessee, proposed a transfer of public health and hospital functions from Houston to the county, but only a partial transfer or co-ordinating steps in the case of other functions.

The group's caution is explained by political realities as well as by a relative lack of areawide problems.

• • •

In Rain, Texans Remember Drought, Vote Bonds for Dams to Save Water

For years, Texans have talked about building state dams to save water for a dry day. Whenever the talk seemed to get anywhere, the first rain would end it. This year, Texans tried again.

The legislature put up for a vote an amendment to the Texas Constitution authorizing sale of \$200-million in bonds to help localities build dams.

As floods ended the state's seven-year drought, there was a fear that Texans, again, would refuse to "fix the roof while it was raining." Gov. Price Daniel warned that the federal government would build dams if the state failed to.

Last week, while rain fell on most of the state, the amendment carried, 3-to-1. Now Texas will set up a six-member Water Development Board. It can issue \$100-million in bonds on its own, must ask the legislature for O. K. on the second \$100-million.

The state will be able to finance up to one-third the cost of any dam built by a local government. There's a \$5-million limit on state help for any one project. The state would get its money back from water sales.

Austin had one worry after the vote: The bonds carry a maximum interest rate of 4%, which may make them hard to sell when the board is ready to offer the water development bonds on the market.

• • •

Toledo, Spurred By Businessmen, Votes to Keep City Manager Rule

The city manager form of government was saved in Toledo last week when voters, by a 2-to-1 margin, rejected a Democratic proposal to replace it with the "strong mayor" system.

The vote represented a major triumph for the City Manager League, a nonpartisan group formed 30 years ago to promote the city manager system but inactive until businessmen revived it last spring.

That's when, after a succession of local men in the job, a professional city manager was brought in. Russell Rink, of Pueblo, Colo., plunged into a program of economy and efficiency that antagonized much of organized labor and others—and Democrats took the cue to push for a strong mayor government in the move that was rebuffed by voters last week.

• • •

Seaway Leaves Detroit Cold— City Turns Down Port Bond Issue

Detroit made it quite clear at the polls last week that it's far from excited over the prospect of becoming a St. Lawrence Seaway port.

A \$9.5-million bond issue to finance the port's expansion failed by 1.2% to get the 60% affirmative vote needed. And a tax increase of 16¢ per \$1,000 valuation, to be in effect until 1973 to pay off principal and interest on the bonds, lost outright.

Ever since the Seaway project got going, Detroit has been divided over how much, if at all, it needed to enlarge its harbor to prepare. The Port of Detroit Commission has demanded new facilities, but many businessmen and the late Mayor Albert E. Cobo (BW—Aug. 17 '57, p156) could see no need for hurrying.

The bond proposal got on the ballot more or less as an afterthought. The newspapers split on it, the Board of Commerce fought it, big industry backed it.

The port commission thinks now it will put up revenue bonds for another vote sometime in the future—but it will be careful to allow more time to educate the public. The rest of the city is right back where it was—divided on whether present facilities are adequate for the traffic the Seaway will bring.

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Off-Broadway Makes a Go of It

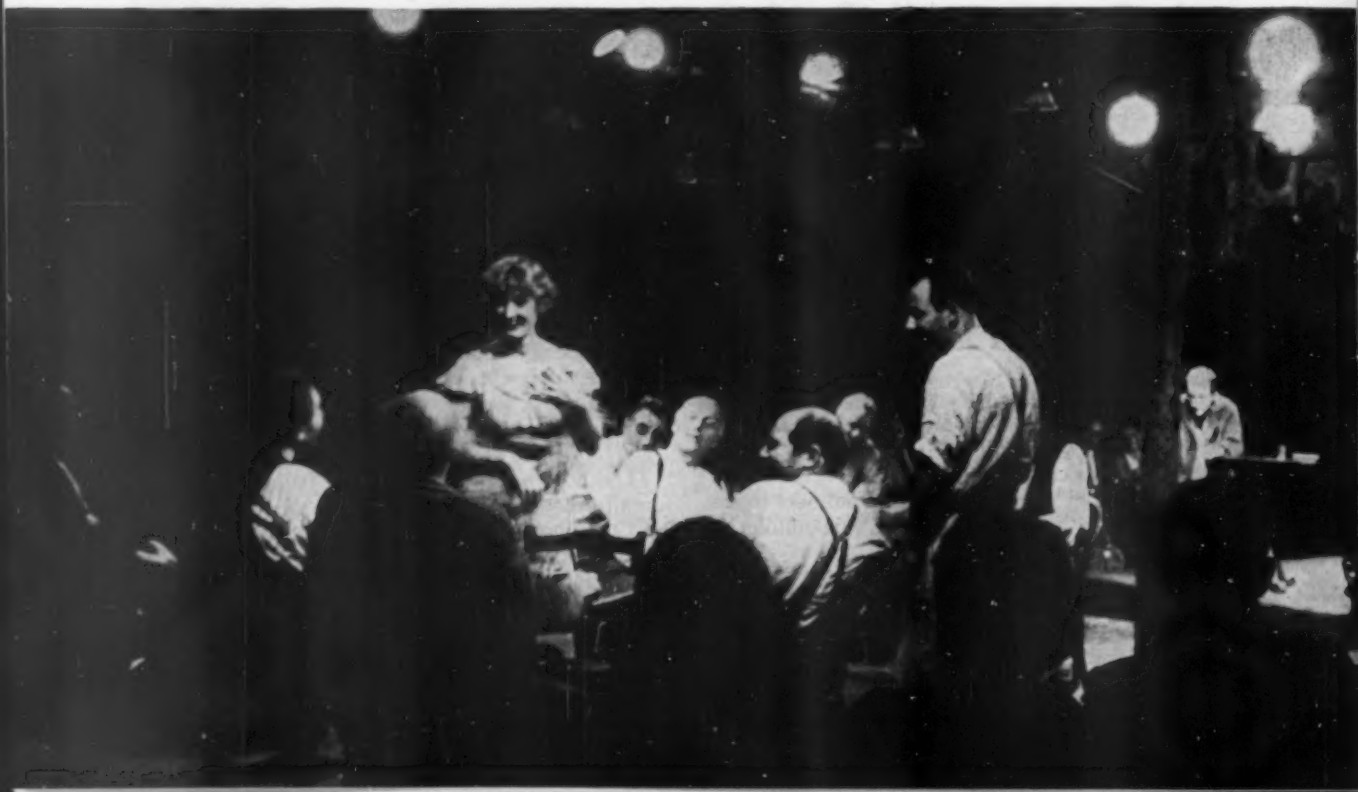


LIGHTS GO ON OFF BROADWAY. Circle in the Square, in New York's Greenwich Village, was among the pioneers of this newest revival of little theater.

Little theaters in New York—and elsewhere—are enjoying a big revival. Though the take is small, they seem to fill a real market need.

Turn down almost any crooked street in New York's Greenwich Village and you're likely to stumble on a theater. It doesn't have to be the Village, either, though that's where some of the best known off-Broadway operations—the Theatre de Lys, the Cherry Lane, Circle in the Square—hang out their shingles. You'll find some on the lower East Side, where the National, the Rooftop, and the Fourth Street Theater hold sway. Or the upper East Side, home of the Jan Hus House, and Theater East. Or the upper West Side, where the Shakespearewrights, Carnegie Hall Playhouse, the Barbizon Plaza Theater, and others are located. Poke into a church basement, a made-over night club or restaurant, an old movie house. Chances are there's a bunch of actors—of more or less professional caliber—putting on a play.

Off-Broadway productions date back to the 1920s and the days of the Provincetown Playhouse, to Eugene O'Neill and his cohorts. In the '30s, the Group Theater under Harold Clurman, Lee





STARS stud some shows. Here Claude Dauphin and Ruth McDevitt rehearse at the Rooftop.

YOUNG TALENT awaits its cue at Rooftop rehearsal of *Clerambard*, on lowest East Side. Ira Cirkor is director.



BREATHER at Cherry Lane allows time for impromptu hairdo in the actors' cellar "clubhouse" between stage appearances.

PERFORMANCE of *Iceman Cometh*, at Circle, brings audience almost within touch of players.



AUDITION for *Of Mice and Men* brings out young hopefuls. Says Fiddle Vira, "I'm only happy when I'm selling a song."



WORDS AND MUSIC: Ira Bilowit (right), producer of Steinbeck musical, confers with director Lehr in composer Brooks' studio.

(Story starts on page 98)

Strasberg, and Cheryl Crawford won its spot in the limelight; it attracted such then unknowns as Clifford Odets, Franchot Tone, and Elia Kazan.

• **Renaissance**—But for the past few years an Off-Broadway renaissance has been in the making. Its impact on the theater world may be no greater than the impact of the earlier cycles. But from the point of view of the market—the estimate of persons who troop into New York theaters to see live plays runs into the millions—today's revival cuts a broader swath than ever before.

More Off-Broadway houses are sprouting. Ira Bilowit, who reviews Off-Broadway for *Show Business*, trade publication (and who is now auditioning for his own Off-Broadway show, a musical version of Steinbeck's *Of Mice and Men*), counted at least seven new theaters last season, and at least that many more opening up this year.

• **Top Writers**—There are other signs of recognition: Late last month, Tennessee Williams announced he was turning over his newest script to an Off-Broadway producer, the York Playhouse, which is in the process of renovation. Thornton Wilder has promised three new one-act plays to Circle in the Square. Stars such as Franchot Tone left their Broadway circuit to act in David Ross's *Uncle Vanya* at the Fourth Street Theater. Leo Kerz, partner with Leonard Lesley and Joy Thomson, whose production of Marcel Aymé's *Clerambard* is in rehearsal at the Rooftop, boasts the play has a cast that "any Broadway show would be proud of." It includes Claude Dauphin, Edith Atwater, Ruth McDevitt.

• **What It Is**—"Off-Broadway" means several things. In a larger sense, it includes all of the U. S. City after city—Milwaukee, San Francisco, Houston, Louisville, Phoenix, Washington, D. C.—reports flourishing little theater groups, sometimes professional, sometimes amateur, do-it-yourself productions (BW—May 4 '57, p62). But in ordinary parlance, Off-Broadway means any New York City theater located beyond the reaches of the Great White Way. The term has become synonymous with little theater. You could call it a state-of-mind: The aspiration of young talent to make the big time; the fervor of the more mature talent that wants to do what it wants to do, to whom commercial success is secondary.

• **Significance**—If it weren't for this attitude, there would be no Off-Broadway. And though by any commercial standard Off-Broadway is peanuts, it has its own significance. Its battles highlight the problems that beset the whole world of theater. And the tiny houses have their own peculiar problems. Today's revival sheds some light on the

question that hounds so many industries: Where is the consumer market heading? What does it want? What will it spend its own money on? Answers to these questions—if they can be found—will tell whether or not Off-Broadway can survive the shoals ahead.

I. Contrasts

The adventurer who wanders off the beaten track of the Rialto in search of theater finds himself in a new world. No big houses, seating from 1,000 to 1,800. The largest Off-Broadway theater, the Barbizon Plaza, has room for 500. (The Phoenix is larger—but it is not considered an Off-Broadway theater because it is too big to operate under Off-Broadway union rules.) Most others seat under 300. And no glamor. The plush seat aura of the Broadway house gives way to straight-backed chairs and, in some cases, antiquated technical equipment. Often the exuberance of success that gilds the Broadway hit performance yields to a pall of tension, with anxious-eyed young—and not so young—actors and actresses, waiting for the beckoning finger to call them to glory.

• **Rough Estimates**—Nobody can keep track of the vital statistics of this crackling splinter of the theatrical world. But Bilowit estimates that the 1956-1957 Off-Broadway season produced some 70 professional plays (employing Equity actors) in some 30 houses. No more than a dozen were artistic successes. Still fewer—perhaps 10—were financial successes. Nobody will guess how much money these shows took in or how many people saw them. But they probably represented a total investment of from half a million to three-quarters of a million dollars.

To these performances must be added an untold number of semi-professional or amateur productions. A survey indicated that several years ago there were at least 300 acting groups in the New York area.

• **Broadway's Showing**—Then look at the Broadway statistics. Variety, bible of the entertainment business, reports that last season Broadway's 31 theaters took in some \$37-million at the box office. Most dopesters figure that a Broadway drama costs about \$100,000 to mount; a musical, \$300,000. On this basis, the 47 plays and 15 musicals represented an investment of around \$9-million. Of these, about one out of five were hits—which means that investors got their money back.

A Broadway hit can collect a weekly gross of from \$45,000 to \$65,000. The most an Off-Broadway show—at the Barbizon Plaza—could hope for would be around \$13,000. Most Off-Broadway producers eye enviously the \$8,000 a week gross that they estimate Three-



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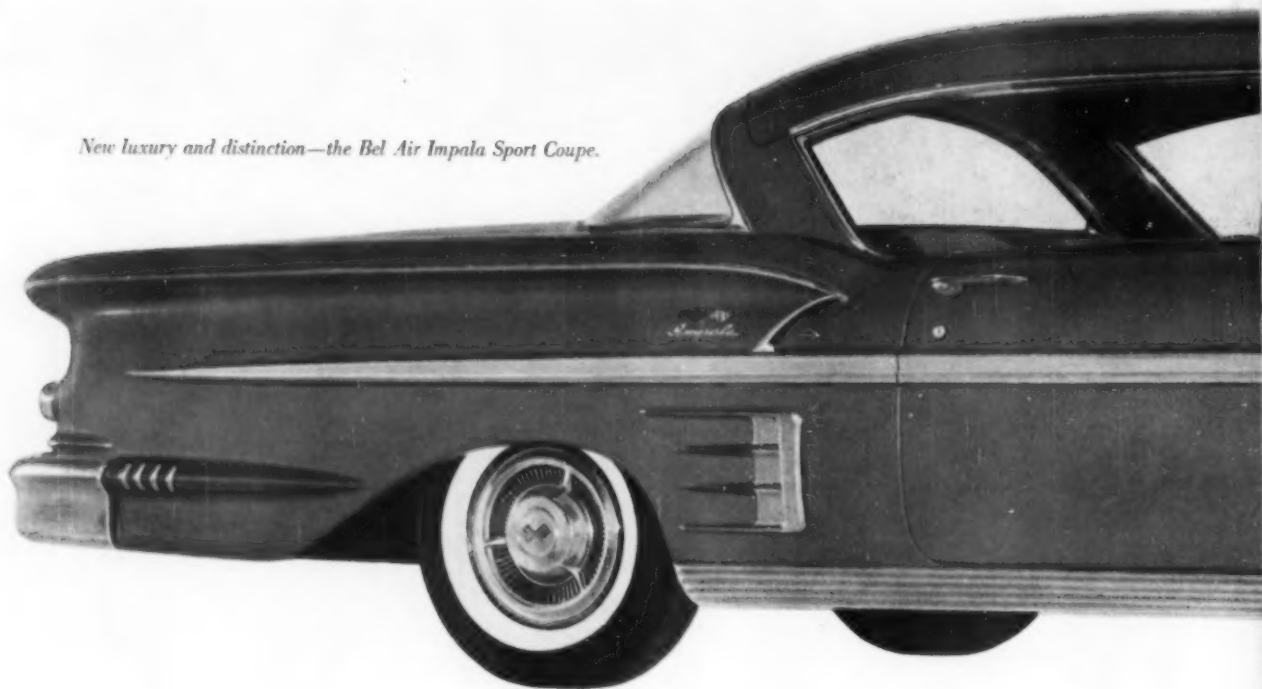
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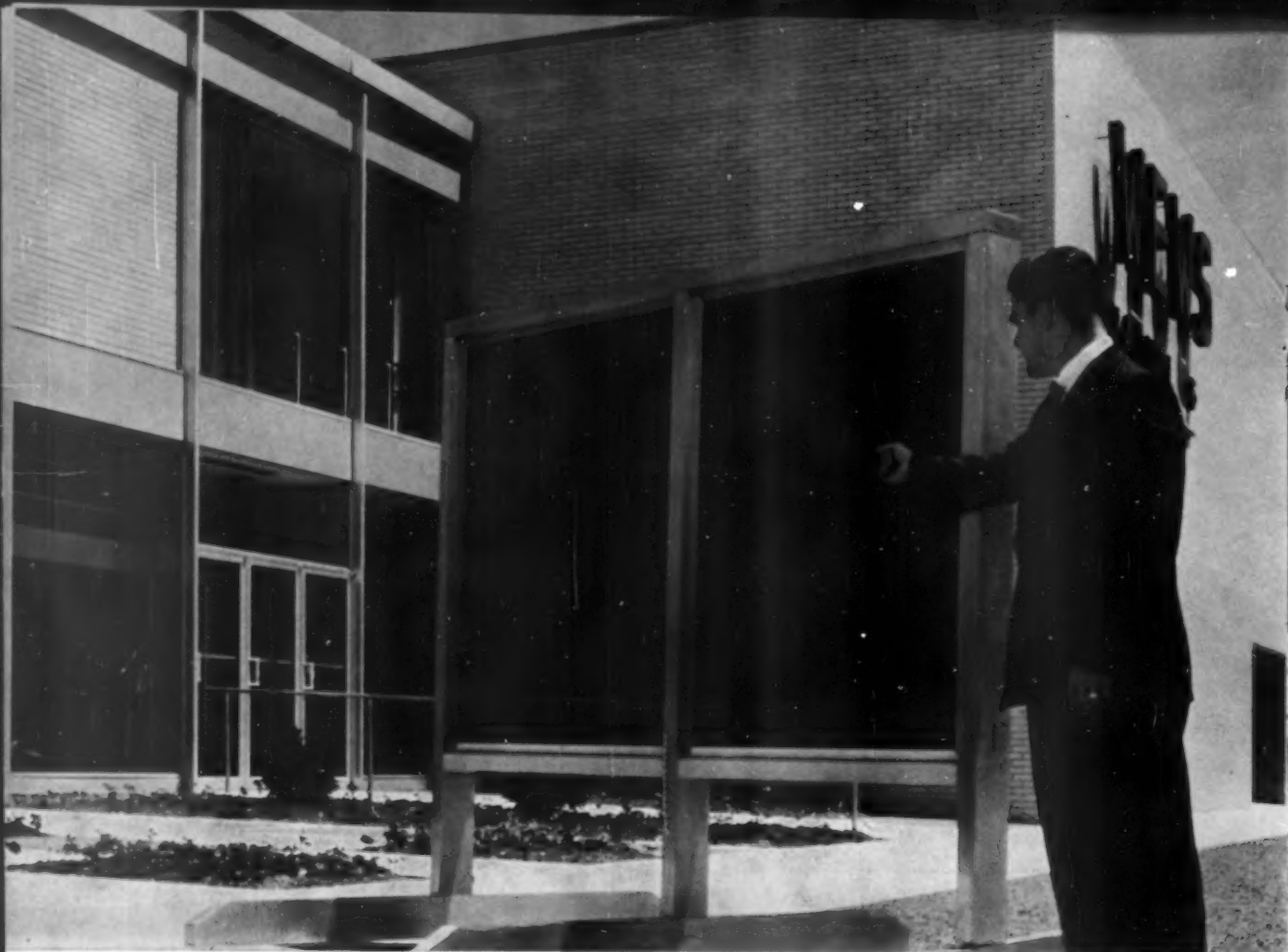
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Average running expenses on Broadway are hard to figure. One guess is that the average show may cost around \$20,000 a week. Off-Broadway can often break even at around \$3,000 or \$4,000. Theodore Mann, co-producer with Jose Quintero and Leigh Connell at the Circle in the Square, figures its break-even point at \$3,000—and its maximum weekly profit at \$400.

You can make money off Broadway. On a percentage basis, the investor can get a bigger return than he's likely to get from a Broadway show. Capalbo & Chase, the team that put on Three-Penny Opera, won't say what its net comes to. But the trade believes it earns \$4,000 a week on its \$8,000 gross.

• **Common Problems**—For all their differences, Broadway and Off-Broadway share some problems.

Rising costs hit both groups hard. In the 1947-48 season, Variety reports, Broadway's total take of \$28-million supported shows throughout 1,325 playing weeks. Last season, a gross of \$37-million supported only 1,182 playing weeks.

Off-Broadway, Capalbo & Chase put on Three-Penny Opera in 1954 at a cost of \$10,000—at that time the most expensive Off-Broadway offering. To do it now would cost twice that. Early Circle in the Square productions broke even at \$1,000 a week, against the \$3,000 it takes today. The Circle's ad budget has jumped from about \$60 a week to \$400 or \$500. Salaries are rising. The days of the shoestring operation are gone. Off-Broadway producers talk of \$20,000 to \$30,000 investments—and sometimes higher—to get a show in front of the footlights.

• **Special Headaches**—In addition, Off-Broadway has some special headaches. The lure of better pay and more glory uptown keeps their casts in a constant state of flux. Some 200 actors have played the 21 roles of Three-Penny Opera during its three-year lifetime. Broadway shows can flop with as dull a thud as any Off-Broadway production. But, because of the meager dollar profits from a hit, Off-Broadway has scant chance of offsetting its flops with a success.

Shortage of theaters—and increased demand for them—means skyrocketing rents, even for a grubby den. Rentals vary from \$100 to \$1,800 a week in an Off-Broadway theater. But it's too much for what you get, says Leo Kerz.

Shortage of good plays is chronic, on and off Broadway. But because of its limited purse, Off-Broadway suffers more. A playwright can get more in options and advance royalties on a Broadway flop than he's likely to get from Off-Broadway, one producer says. This is one reason Off-Broadway con-

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group that makes up the core of Off-
Broadway believes that this time, maybe,
just maybe, Off-Broadway can survive.

II. Why It Grew

There are two basic reasons for the
existence of a widely dispersed theater
operation off New York's main thea-
trical stem.

First, there is the market itself. There
is a real demand for Off-Broadway
theater—a demand that Broadway itself
isn't satisfying—at a price the market
can afford.

• **Oversupply of "Merchandise"**—Sec-
ond, there is the pressure of a vast
oversupply of "merchandise." Actors,
says one observer, are the cheapest com-
modity in New York. "We're all frus-
trated actors here," mutters the elec-
trician (who doubles as stagehand) at
one of the tiniest of the Off-Broadway
theaters.

Actors' Equity Assn. has some per-
tinent figures. Some 10,500 people are
on its rolls. This is 1,300 more than
a year ago, 4,000 more than 10 years
ago. Yet on the average, Equity says,
somewhere between 1,800 and 2,800
of its members are actually on the stage
at a given time. And there are probably
twice as many young hopefuls who
have not yet attained Equity status.

• **New Adherents**—This is an old prob-
lem, but it has been augmented since
the war. During the 1940s, there was
a lull in Off-Broadway activity. But
after the war, many returning soldiers
thronged the drama schools, with GI
money in hand. They studied till they
got tired of going to school. Then
they started to put on their own shows.
Slowly, the accumulation of Off-Broad-
way effort began to attract attention.

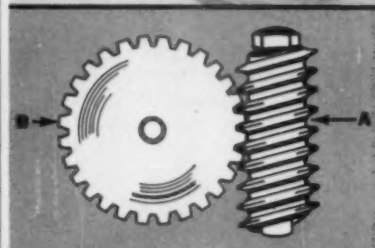
The Circle in the Square, tiny arena
theater in the heart of Greenwich Vil-
lage, is generally credited with the first
big Off-Broadway hit: Tennessee Wil-
liams' *Summer and Smoke*. That was
in 1952. Since then the team of Quin-
tero, Connell, and Mann have put on
15 plays. Most have been artistic suc-
cesses, and three have been commercial
successes, Mann says. Its latest triumph,
the revival of Eugene O'Neill's *The
Iceman Cometh*, is in its second year.

Three-Penny Opera is another of the
seven wonders of Off-Broadway. It has
been playing for three years—and tick-
ets still are hard to get.

Third of Off-Broadway's big timers
is the Cherry Lane Theater. Here Noel
Behn and Robert Kamlot act as a man-
ager-producer team. Its version of Sean
O'Casey's *Purple Dust* (produced by
Paul Shyre, Howard Gottfried, and
Behn) is now in its 11th month.

Show Business pioneered reviews of
Off-Broadway, it says. Then the critics

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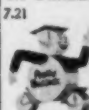
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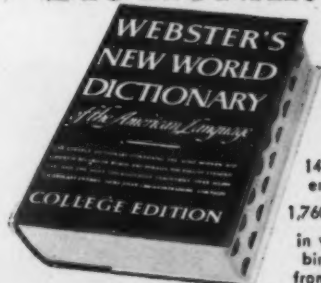


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of the big dailies began to come. And that brought out the audiences.

It's a question whether Off-Broadway is the answer to an unsatisfied market, or whether it created its market. Probably, it works both ways. "We came first," thinks James Clark, stage manager of *Purple Dust*. "There's a market for our kind of show. But we created it; then the audience learned it was here."

• **Filling a Need**—From the market's point of view, Off-Broadway has capitalized on its own and Broadway's limitations. Noel Behn feels that Broadway is partly a victim of its own myth. People who pay \$8 to see a Broadway show expect plush seats, extravagant productions, stars, glamor. Leo Kerz sums up this view a trifle bitterly. "The theater lover can no longer afford Broadway," he says, "and Broadway can no longer afford to give the theater lover what he wants. It caters to the expense account set."

Plenty of critics have aimed the charge of "hititis" at Broadway before. The huge investment required to mount a show—and to keep it running—forces producers to keep their eyes glued to the box office. Only a few can afford to put on the play with a limited appeal.

Most Off-Broadway producers are resigned to the fact that they aren't likely to get rich. The very smallness of the theaters precludes enormous dollar profits. But the small pile of pay dirt has its special rewards. Off-Broadway producers are freer to put on the play of their choosing. They can experiment—and they can put on the "limited market" show: Shakespeare, Chekov, Strindberg, the unknown. Bilowit, for one, insists that Broadway is quite as experimental. But most theater people disagree.

The tininess of the theaters can turn into an asset. An audience that sits within feet of the players—as they do in the arena theaters—is more easily caught in the play's spell. This much-cited "intimacy" partly explains why plays that flop on Broadway go over in the little theaters—and the other way around. Stella Holt, whose *Simply Heavenly* flourished at the Greenwich Mews, has just closed down after a short run on Broadway—and is reopening off Broadway.

• **Psychological Advantage**—Off-Broadway also has a psychological advantage, Behn feels. He says when a theatergoer finds a good show off the main drag, he feels he has made a discovery.

But Off-Broadway has more tangible assets. If the little theater's cast tends to evaporate to greener fields during a successful run, this is partly offset by the willingness of the occasional star to move his orbit. "To get the great roles now," says Behn, "an actor almost has to come Off-Broadway." This explains

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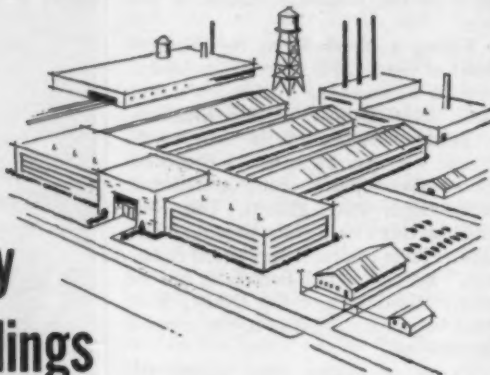
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why Franchot Tone went to David Ross's Fourth Street Theater to play Uncle Vanya—at a substantial cut in his usual pay. Three-Penny Opera, too, hounded though it is by evaporations from its cast, comments, "Our actors tend to come back,"—at a salary of \$75 a week—because they like the parts and they like the show.

• "Showcase" Value—Undoubtedly, the greatest asset Off-Broadway has for actors, directors, producers is its "showcase" value. "Everyone wants to be on Broadway," says David Ross. But if you can't, it's far better to be acting in a little theater to a small audience than not to be acting at all.

The miracle does happen. Outstanding names include Jose Quintero, who first won fame with Summer and Smoke, and who is now producing the O'Neill Long Day's Journey Into Night. That same Summer and Smoke made a star of Geraldine Page. Jo Sullivan graduated from Three-Penny Opera to Most Happy Fella.

This showcase factor explains why people will make big sacrifices to get into Off-Broadway production. David Ross is a good case in point. His opening at the Fourth Street this fall, the Italian Straw Hat, was a total loss, but in his three years in New York he has won wide recognition for his production and direction of Chekov and Strindberg. Yet, says his accountant, Karlin & Lowenthal, in that time he has sunk some \$25,000 of his own money into the theater—and has recouped not one cent in salary. "But why should I quit?" Ross asks. "I came here to show people what I could do. I put on the plays I liked. And I have had six successes."

III. Can It Last?

Even the most successful producers see trouble aplenty ahead for the little theater. "If our costs go up 5% more," says one, "we've had it."

Top on the list of worries is what the unions will do. So far, the many craft unions involved—the stage hands, the costumers, the electricians, the musicians, the press agents and managerial people—have caused little complaint. "The unions have been most considerate," says Kerz, and his comment is typical.

That is because they deal—through their central Fact Finding Committee—with each production as it comes along. Milton Weintraub of the Assn. of Theatrical Press Agents & Managers, who heads the committee, says the unions realize that their own membership depends on the existence of theater—and Off-Broadway is the nursery, if nothing else, for more theater. So, depending on each production's potential, the committee makes con-



MOLTEN STAINLESS STEEL, under watchful eye of furnaceman, flows into ladle on way to casting molds.

Ben David

modern alloy, ancient art

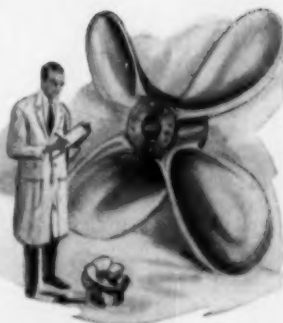
Cooper Alloy know-how finds ever-better ways to make stainless steel castings.

Metal casting, one of mankind's oldest industrial arts, is practiced with a modern difference at Cooper Alloy's stainless steel foundry, whose products in this heat and corrosion resistant metal (valves, fittings, aircraft rings, and custom castings) are widely recognized as the most exacting and advanced in every way.

Why Cooper Alloy Castings are superior. Cooper Alloy has pioneered for 35 years in developing new methods of casting this "tricky" metal, from spectrographic analysis of metals, through shell casting, to X-ray inspection of

finished castings, and above all, constant improvement of mold and casting design for optimum efficiency.

What Cooper Alloy know-how means to you. This continued pioneering in casting techniques has had a pace-setting effect on the quality of our nation's stainless steel castings. Cooper Alloy today offers you unmatched experience and skill, plus the BIG 3 so important to management men: high quality, dependable service, and ultimate economy—all good reasons for insisting on Cooper Alloy Advanced Know-How!



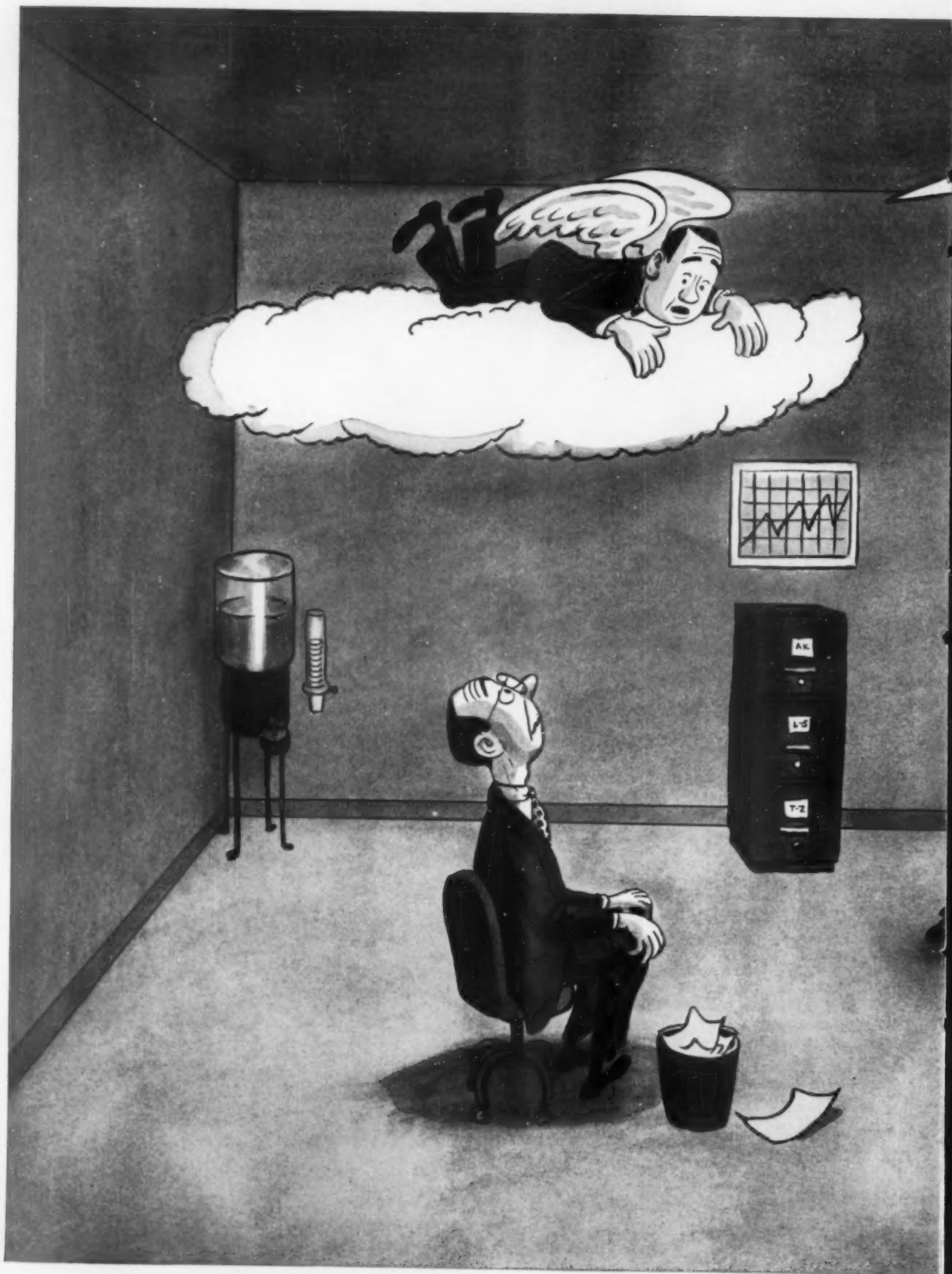
Ship propeller, pump impeller, both by Cooper Alloy, will provide reliable, corrosion-free service.

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SPECIALISTS in Stainless Steel valves, fittings, castings, aircraft rings; Plastic pumps, pipe, valves, fittings



"But nobody dies on purpose, Cal!"



Cal: It couldn't be worse if you'd planned it that way.

Dan: But I left my business to the family.
What happened?

Cal: Estate taxes, Dan. Inheritance taxes.

Dan: I don't understand. What about my credit?

Cal: A-1, Dan. But—ahem—you're gone.

Dan: Oh. You mean, the bank wouldn't —?

Cal: No, they wouldn't. I had to sell the business.

Dan: Oh.

Cal: I told you to consult your attorney.
Your banker, too

Dan: I remember. Business insurance.

Cal: Business insurance by Equitable.

Dan: I know, I know.

Cal: Just as important as planning production quotas.

Dan: Enough, Cal. You'll do your best?

Cal: You know I will, Dan. But my best will be a
salvage operation.

Dan: If I had it to do over—



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Equitable Life Assurance Society of the U. S.
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Please send me Equitable's new booklet which explains how Living
Insurance can help solve many common business and tax problems.

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NEW DUAL SHIELD PROCESS AUTOMANUAL WELDING



In Dual Shield welding, inexpensive carbon dioxide gas is automatically fed to the arc to blanket and prevent contamination of the weld. The special flux-cored Dual Shield electrode is fed automatically and continuously from a reel. The flux is never in the way, never hides the weld, is never seen until it appears as a shield on the finished weld... where it prevents atmospheric contamination during cooling of the weld metal. Weldors like to work with the Dual Shield process, say its balanced "gun" is easier to handle and less tiring than the weld rod and holders it supplants.

Dual Shield and Automanual are National Cylinder Gas Company trademarks

Now better welds continuously at speeds never known before!

Science takes the guesswork out of welding. Automanual welding with the new NCG Dual Shield arc welding process permits every weldor to make better welds continuously, foot after foot, hour after hour, day after day. And it does it from three to twelve times faster than ordinary arc welding methods! Shop after shop says the time saved, the failures, rejects and wasted materials avoided can pay for Automanual welding equipment in a matter of days.

The new Dual Shield process produces a better weld because electrode feed and current density are set and held automatically... and because the deep penetration weld is

completely protected from atmospheric contamination, not only during deposition of the weld metal but during cooling. The weldor merely points the Dual Shield "gun" where he wants the weld; everything else is automatic. It is so dependably automatic, in fact, that this new Dual Shield process makes fully automatic production welding most feasible. It is only necessary to traverse the gun or the work mechanically.

Weldors like the Dual Shield process, take pride in its clean flat bead, like the speed they can make with so much less effort. Check the Dual Shield process for your needs; see it work! Write or wire for full information.

NCG®

INDUSTRIAL GASES

METAL CUTTING & WELDING EQUIPMENT
MEDICAL GASES

HOSPITAL PIPING & GAS THERAPY APPARATUS

NATIONAL CYLINDER GAS COMPANY
EXECUTIVE OFFICES

840 N. Michigan Avenue, Chicago 11, Illinois

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cessions in salary, or in numbers of union employees it requires.

• **Equity Pay Scales**—When it comes to Actors' Equity, Off-Broadway producers tell a different story. Equity has not only raised the minimum pay for actors through the years; a year ago it instituted the sliding scale for Off-Broadway theater.

For a Broadway show, Equity minimum calls for a weekly salary of \$100. For Off-Broadway, the minimum ranges from \$40 a week for productions grossing under \$3,000 to \$75 for those that gross over \$4,500.

One producer complains that a \$10 jump in salary may mean the difference between breaking even and losing \$200 a week. And, he adds, that many actors are willing to work for nothing—as the producers do if they have to—rather than not work at all.

Equity answers that it has made major concessions to allow the Off-Broadway productions to stay alive. These involve not only salary, but also the number of Equity players. A Broadway show cannot hire a non-Equity actor. For Off-Broadway, Equity requires anywhere from three to seven Equity actors in a cast.

• **Business Inexperience**—Lack of business and management knowhow plagues many of the productions. This leads to too fancy a budget or inadequate financing. "You should figure on getting your nut back in 8 to 10 weeks," says Noel Behn.

Some theater lovers fear that the cost pressure will strangle Off-Broadway—or turn it into a decentralized Broadway, with both eyes on the box office. There is a perfectly good chance that the theater's major marketing medium for young talent would die.

• **Optimistic Talk**—Yet there are plenty who talk optimistically of Off-Broadway's future. Behn thinks that the growth of partnerships such as those at the Circle, Cherry Lane, Theatre de Lys, and others is one reason for hope. Bilowit feels more management knowhow is helping solve some of the problems. Leo Kerz says stoutly: "It's not a question of whether Off-Broadway can last. It's a question whether Broadway can."

The actors, bustling around the dingy little theaters, feel the air is rosier. "The Village is a new place since all these theaters opened," says Susan Reed, singer and actress. "If the going gets too tough, we'll just go farther off Broadway."

Theodore Mann shakes his head at such a suggestion. New York, hub of the theater market, is vital to theater's success, he feels. He expects many Off-Broadway operations will fall by the wayside. "But there'll always be a core of stout hearts to keep it going. I hope we will be one of them." **END**



"PLUG DEM IN AN' LEAVE AERODYNAMICS DO THE REST"

Cyclone Fence will permit air to pass freely, but that's about all. It will surely stop prowlers and vandals. And it forces all other traffic through proper entrances and exits.

There are many styles of Cyclone Fence, each designed for a different type of protection. Why not use the coupon below to send for a free copy of our booklet describing all the advantages of protecting your plant or property with Cyclone Fence?



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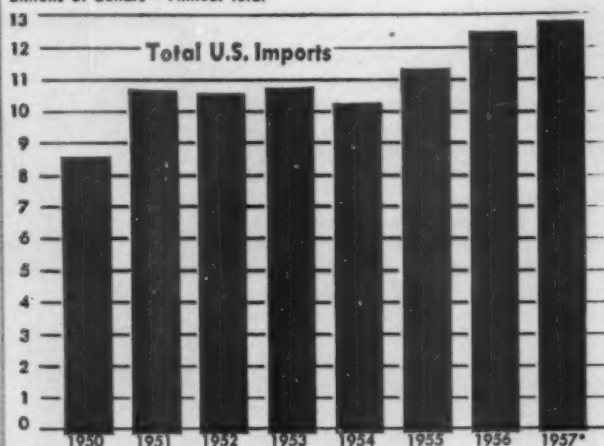
UNITED STATES STEEL

While

Total U.S. imports ➔

gain slowly . . .

Billions of dollars — Annual total



Data: Dept. of Commerce; Business Week Estimate.

*Based on first six months.

Imports During First Six Months

	1957	1956	Percent Change
(millions of dollars)			
Wearing Apparel:			
wool	17.4	10.8	+61.1
silk	5.3	4.8	+10.4
synthetic	4.7	2.5	+88.0
cotton	27.8	28.1	- 1.1
Steel Cutlery	7.6	6.6	+15.2
Steel Tools	6.3	5.5	+14.5
Toilet preparations	4.2	3.6	+16.7
Leather Goods:			
footwear	9.1	7.1	+28.2
gloves	1.4	.8	+75.0
handbags and billfolds	3.2	2.6	+23.1
Photographic goods	18.5	15.3	+20.9
Toys and			
athletic goods	19.6	16.7	+17.4
Artworks and antiques	19.5	15.2	+28.3
Clocks and watches	32.7	30.6	+ 6.9
Musical instruments	10.1	9.7	+ 4.1
Clay and products	35.8	32.0	+11.9
Glass and products	28.0	34.0	-17.6
Canned beef	11.7	8.9	+31.5
Cheeses	12.8	12.1	+ 5.8

Data: Dept. of Commerce.

... There have been

spectacular increases

in the kinds of goods

➔ **on retailers' shelves**

Merchants Push Foreign Goods

It isn't necessary to dig out figures like those in the tabulation above to prove that consumer goods from abroad are invading the U. S. market in ever increasing volume.

This year, more clearly than ever before, American Christmas shoppers will reach the same conclusion simply by walking through almost any retail store. On the shelves is merchandise from just about every Western—and some Iron Curtain—countries. Toys from Germany, sweaters from Britain, stain-

less steel flatware from Sweden, furniture and hams from Denmark, men's suitings and women's shoes and handbags from Italy, cameras from Japan, sporting goods from Switzerland, wooden stools from Yugoslavia—the list is endless. And next door, an auto dealer displays a tantalizing line of foreign cars—the glamor girl of imports.

• **Promotion Push**—What's more, the U. S. retailer isn't hiding the fact that he wants to push this merchandise—usually at favorable prices—into the

hands of his customers. Almost any day in some major city you'll find a major promotion of foreign-made goods backed by hefty advertising. It may be Macy's Italian men's wear sales in New York, or a special display such as the Meyerland shopping center's "Around the World in 80 Acres" in Houston. In the past three or four years, department stores and specialty shops from coast to coast have been enticing traffic with generous dashes of international flavor—an International Bazaar in



For maximum strength and long life, all LYON chairs feature channel frame construction, the same as in your automobile. Seats and backs are contoured for real comfort.

"LYON QUALITY DESIGN makes THE DIFFERENCE!"

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This same quality design makes the difference in every one of the more than 1500 standard Lyon items, a few of which are shown below.

CALL YOUR LYON DEALER. He offers the world's most diversified line of steel equipment. Equally important, he can show you how to get the most for your money in terms of saved time and space.

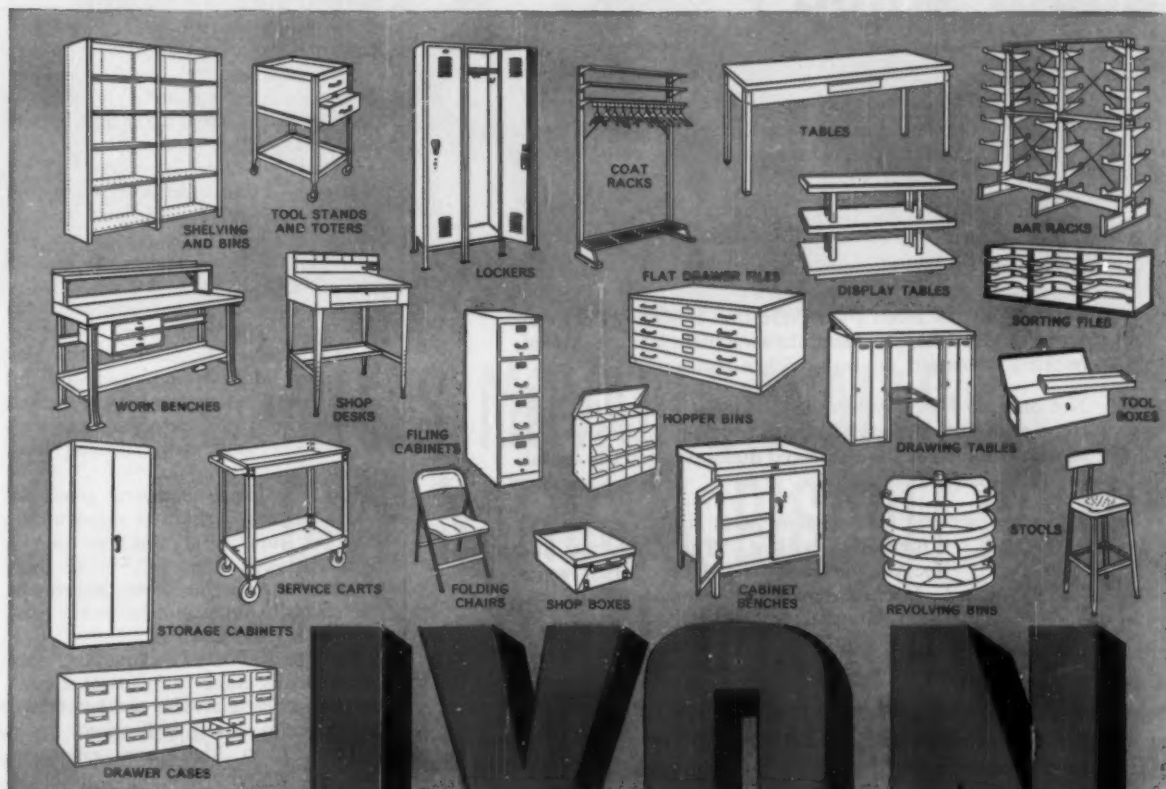
We can manufacture special items to your specifications.

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General Offices: 1110 Monroe Ave., Aurora, Ill.

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Whether your problem is community relations or just a nagging suspicion that valuable dusts are going up the factory stack, there's one sure, simple way to get the answers: Buell engineers can clear up the picture with a clear, concise, accurate analysis of your needs.

A history of hundreds of installations and decades of experience in field and laboratory explain the guaranteed performance of Buell Dust Collection Systems. Performance standards are written into each installation contract, backing up expert analysis with a guarantee.

Not only do Buell systems help soothe community relations and meet the strictest air pollution ordinances... in nearly all cases the recovered dusts pay for the installation in just a few years!

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Experts at delivering Extra Efficiency in
DUST COLLECTION SYSTEMS

Pittsburgh, and Export Fair in Chicago, a World Trade Fair in Houston, a French fortnight in Dallas.

From every section of the country, **BUSINESS WEEK** reporters this week found retailers agreeing that foreign goods are playing a much bigger part in their plans—and the trend is likely to become even more pronounced in the next few years.

As a Cleveland observer put it: "The market is being invaded."

I. Small but Significant

Actually, when you look at gross import figures, the amount of imported goods that consumers purchase is tiny. Of the total, only 8% to 9% of products coming into the U.S. find their way in recognizable shape onto retail shelves. (Industrial goods and commodities account for the other 90%.) You can easily put the \$1-billion or so annual volume of end consumer items in one month of total imports—now running at over \$12-billion per year.

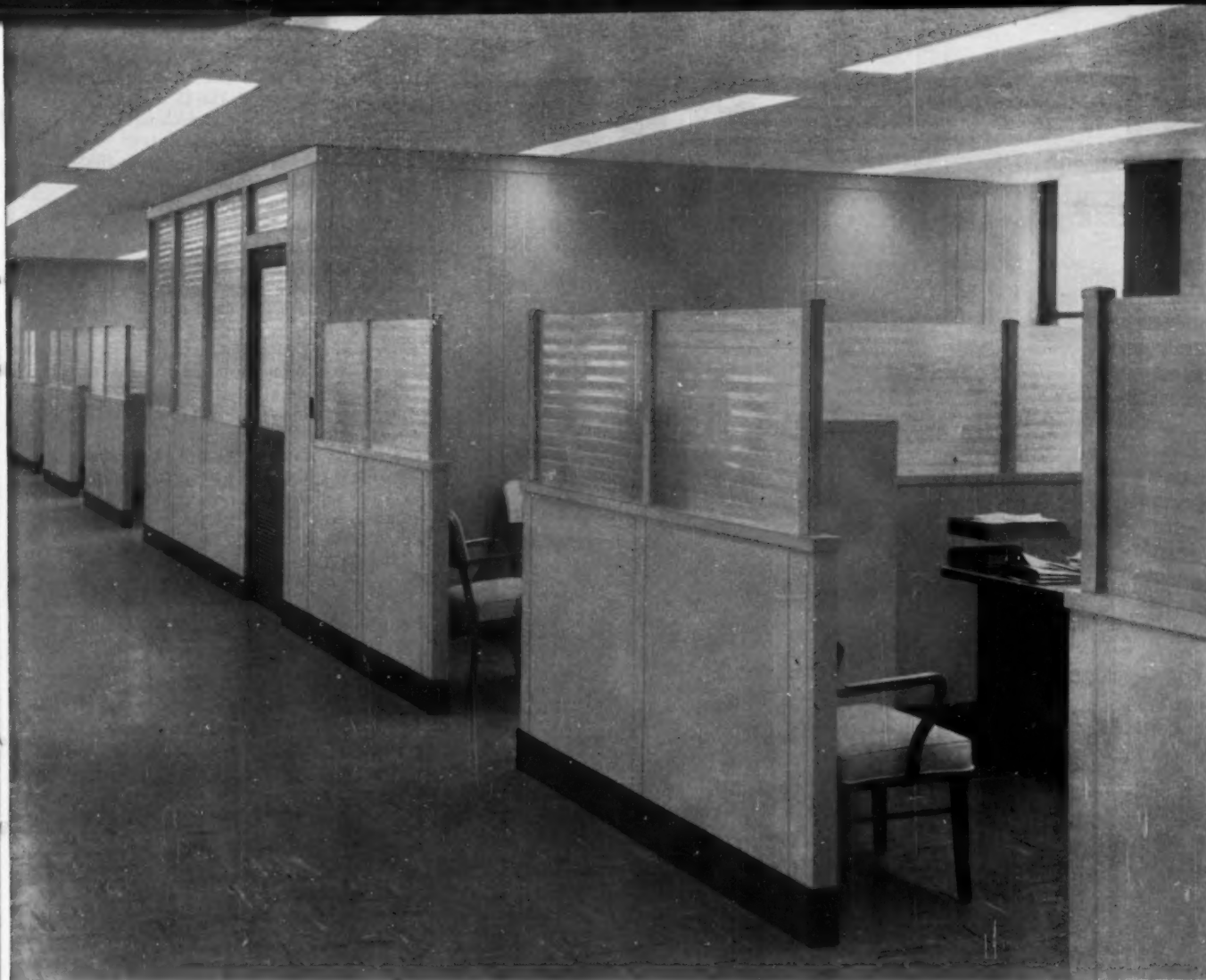
In fact, the Commerce Dept. views the influx of industrial goods and commodities as a far more important trend. Even so, Washington sees the consumer end reaching a stage important enough to launch a thorough research job into these imported products in order to develop statistics that up to now haven't been available.

• **Breakdown**—The importance of import sales at the retail level stands out more sharply when you look at individual breakdowns, rather than at overall figures. An Atlanta retailer says that "before many months I look for about a third of all our handbags, jewelry, and other small wares to be imported." Sears, Roebuck admits that in some lines—sewing machines, for one—imports dominate the market. Other stores report percentages as high as 40% in some items coming from abroad.

Just how much imported goods account for total retail sales varies widely store to store. But you can pick a figure between 2% and 5% of overall store volume in most department and specialty stores and be pretty close to the U.S. average.

• **On the Rise**—More important, that percentage is going to increase—if comments by the men who make the buying decisions is any indication.

Thus, Leon Martinuzzi, vice-president of Macy's Foreign Office, points to the Italian Men's Wear Fair now under way in Macy's New York store. The import business in his company is definitely up; it shows in nearly every department of the store, he says. He cites the Macy fair as an example of an important new trend. The Italian fair offers men's suits made in Italy. Most



Architects: Kahn and Jacobs • Interior Designers: Rodgers Associates

MILLS MOVABLE WALLS GIVE NATIONAL BISCUIT COMPANY SPACE CONTROL

Future as well as present efficiency has been made certain in The National Biscuit Company's new headquarters at 425 Park Avenue, New York City. Space Control is assured by the use of Mills Movable Walls for both general and executive offices. As changes in space requirements occur, these walls can be rearranged to fit new layouts... quickly and easily... without dust, debris or commotion. Entire departments can be rearranged in a matter of hours, overnight or during

a weekend, without interrupting normal routine. Unexcelled in architectural design and structural stability, Mills Walls are available in an almost limitless array of attractive modern finishes. Their baked-on enamel surfaces are specially treated to eliminate harsh light reflection and require no maintenance except occasional washing to keep them looking always their handsome and efficient best. The Mills Company • 963 Wayside Road • Cleveland 10, Ohio

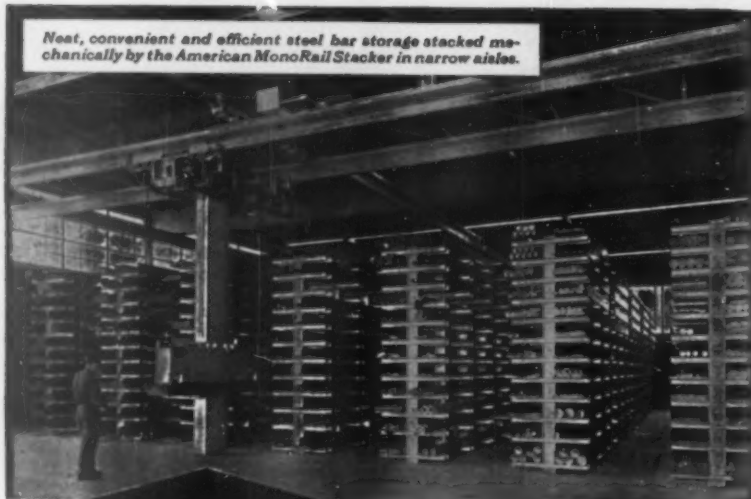
MILLS MOVABLE WALLS



For more information on the newest
and finest in movable walls today
write for the 1957 Mills Catalog.



Neat, convenient and efficient steel bar storage stacked mechanically by the American MonoRail Stacker in narrow aisles.



HOW'S THIS FOR STEEL STORAGE!

American MonoRail engineers, working with Hawkrig Brothers Company, designed this system for storing bars, rods and other long steel shapes.

Note the extremely narrow aisles and maximum height of racks. Bars and rods, 20-22 feet long, are placed in pans 18 feet long. The American MonoRail Stacker transfers these pans to either side of an aisle for storage.



American MonoRail Stacker lowers a banded bundle of bars over prongs which ingeniously splits bands, lets bars roll into trough for pick-up in a tray



MonoRail Stacker forks support bar in saw. Saw with extension rolls to any convenient spot in the warehouse.

Photos: Courtesy of Hawkrig Brothers Company, Waterbury, Conn.

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STACKER CRANE

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MANUAL MONORAIL

retailers buy foreign fabrics, then have the goods made up in the U.S. As overseas producers learn the techniques of mass production and more about the U.S. market, Martinuzzi expects that more finished soft goods will come straight from the country of origin.

A Richmond store, again, doing \$30-million a year, says its imports account for about 2% of volume. That proportion will be boosted to 3% or 4%. Federated Dept. Store's big and growing Lazarus unit in Columbus, whose import sales have climbed 50% in the last seven years, also wants to boost its volume from 2% to 3% or more of total sales. Cleveland merchants, who already do substantial promotion of foreign goods, think the opening of the St. Lawrence Seaway in 1959 will give that business an even greater boost as direct water shipments cut freight charges.

It's true, of course, that any general letdown in business here or abroad could crimp the plans of both domestic and foreign businessmen. Nor can you overlook the likelihood that one of the toughest tariff battles in years in Washington could result in much higher barriers to foreign trade (page 142).

But, barring these possibilities, there is nothing but growth ahead in the retail picture for foreign merchandise—from the standard items like Irish linen and expensive, high-quality offerings that appear in fancy specialty shops (\$1,200 French gowns in Neiman-Marcus, say) to the low-end \$1 and \$2 blouses you'll find in variety chains and junior department stores.

II. The Attraction

It isn't hard to see what has awakened the nation's interest in foreign goods.

Probably the most important reason is that U.S. merchants, almost unanimously, agree that it's good business. For one thing, it gives the retailer a chance to realize larger ultimate profits—the markup is greater and the chances of direct price competition are less. As a Houston merchant said:

"I can tell you why we like imported goods in our store. We make more money per item on them."

Another important asset for the store is the greater chance of offering an individual or exclusive item with a foreign flair, for which the U.S. consumer increasingly has a yen. Major stores, after all, are much alike in their domestic merchandise. Foreign goods give them something to strut about. "Imports are the icing on the cake," says Ohrbach's president, Jerome K. Ohrbach. They convince consumers that Ohrbach's is a place where you can get the unusual at a price.

Often, too, the business is plus business. According to a Columbus mer-

LETTER CAMS molded with ZYTEL nylon resin resist abrasion, help assure long service life in IBM Electric Typewriters, made by International Business Machines Corp., New York, N. Y.



Like IBM, you may

reduce wear at critical points by using parts made of Du Pont ZYTEL[®] nylon resin

Accurate components consisting of ZYTEL nylon resin molded around metal inserts in the IBM Electric Typewriter improve operation at a vital point. Smooth, durable ZYTEL nylon resin prevents wear on the rubber-covered roller contacted by the cam. These parts of ZYTEL resist abrasion and impact. No lubrication is needed, and maintenance is

said to be greatly reduced.

ZYTEL is often molded around metal parts to obtain the advantages of both materials. Metal shafts may be imbedded in gears of ZYTEL, and electrical contacts may be molded directly into hardware such as plugs and coil forms. Strong inserts can be made even in thin walls. Components of ZYTEL are extremely

tough and light in weight. They are resilient, heat-resistant and durable.

Use of injection-molded mechanical parts made of ZYTEL nylon resin may provide improved performance, reduced maintenance.

Fill out and mail the coupon to obtain information showing how Du Pont ZYTEL can help you with your component problems.

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How "Hot" Cobalt is Handled Safely

Here, encased in a 3-ton lead jacket, is radioactive Cobalt 60 being raised from its deep water storage pool. The tools used to handle this difficult job safely are a Geiger counter and an ACCO Registered Wire Rope Sling.

Your own lifting operations may not require a Geiger counter but they do deserve the extra margin of safety that only ACCO Registered Wire Rope slings can offer. Each is fac-

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Only ACCO slings give you the confidence of DUALOC endings...the patented mechanical ending that is double locked for double security.

To learn how ACCO Registered Wire Rope Slings can give a new measure of safety to your lifting operations, call your distributor today.

Write for Booklet: American Chain & Cable Company, Inc., Wilkes-Barre, Pa.
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NKP Piggyback serves fresh coffee every morning

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Phone: MAin 1-9000

chant: "You don't spend money to comb foreign countries for stuff to compete with domestic goods."

• **Roman Holiday**—Foreign merchandise thus gives promotion departments a chance to stage a sort of Roman holiday that attracts traffic for all parts of the store. Add to this the profit advantage and you can understand why retailers are eagerly searching for goods abroad.

This search has led many of them—even the biggest—to upgrade their buying efforts overseas. Those who have got their feet wet insist that the secret of good import business is having your own buyers in the foreign markets—even more important, perhaps, than in American markets, where national brands advertising tends to level out buying choices.

Kirby Block, big New York buying office with department store clients all over the country, tells its clients "there is no short cut to successful import operations—we tell them they have to send their buyers abroad with bigger open-to-buy positions."

One major advantage, it says: "When a buyer goes overseas, she usually makes darn certain what she buys will be pushed and sold with no markdowns—she wants to go back next year."

• **Pitfalls**—More and more merchants are following this advice. That way, says one, "you find sources which importers in this country often overlook."

This on-the-spot buying can be dangerous, too. A big Chicago retailer placed a large order for stainless steel flatware, found it didn't match American specifications (the items wouldn't fit in U.S.-size drawers), and had to dump the lot at stiff markdowns. Today, its buyers are going abroad with their own specifications.

Specification buying, in fact, is probably the second biggest reason U.S. retailers are finding import business to their liking. Their own education, as their buyers tramp the overseas markets, about what is available is being matched by better reception by foreign manufacturers.

It is still often difficult to place big orders, but more factories overseas are willing to take on large orders—and are prepared to fill in with reorders—than ever before. What's more, they are quite ready to manufacture their goods to U.S. requirements.

As a result, private label merchandise—with, say, the fabric labeled as imported expressly for the individual store or the garment itself carrying the imported label—has become standard practice.

• **Old World Knowhow**—Despite the specifications laid down by U.S. buyers, merchants say that it's the colors, originality of styling, the individuality stemming from age-old handicraft work



Push-button lubrication for the age of automationand STEWART-WARNER is there!

On the automated production lines of modern industry, products are made better, in greater quantities, more economically, by groups of high-powered machines that "think for themselves." On these complicated multiple units—and on other types of machinery, including single units operated by one man—Stewart-Warner's **ALEMITE automatic** lubrication is giving constant, foolproof service and protection.

Alemite **OIL-MIST**, **Accumatic** and **ACCUMITE** systems are controlled from one central point. They provide modern, improved lubrication methods that reduce man-hours and machine downtime. Serving major companies in almost every field of industry they deliver accurate sup-

plies of lubricant to any type of bearing on any machine.

Alemite **OIL-MIST** sends a continuous airborne mist of fresh, clean oil through tubing to all machine bearings, while the machines operate. **Accumatic** and **ACCUMITE** systems automatically deliver exact amounts of oil or grease to a single machine or to groups of machines. All of these systems eliminate guesswork, oil and grease waste, product spoilage and costly machinery failures. They reduce product costs and provide unfailing automatic protection.

These **ALEMITE** automatic lubricating systems, as well as the complete lines of **ALEMITE** equipment for all conventional

industrial needs, constitute another outstanding example of Stewart-Warner's contributions to America's progress.

Through the intensive new product development efforts of its nine widely-diversified, highly-integrated operating divisions, Stewart-Warner continues to strengthen further its leadership in such dynamic, rapidly-growing fields as advanced electronics, instrumentation, high pressure lubrication, materials handling, combustion, heating, air conditioning and complex heat exchange technology.

Whoever you are, wherever you live, work or travel, **Stewart-Warner is there**—making work easier, life better, America more secure.

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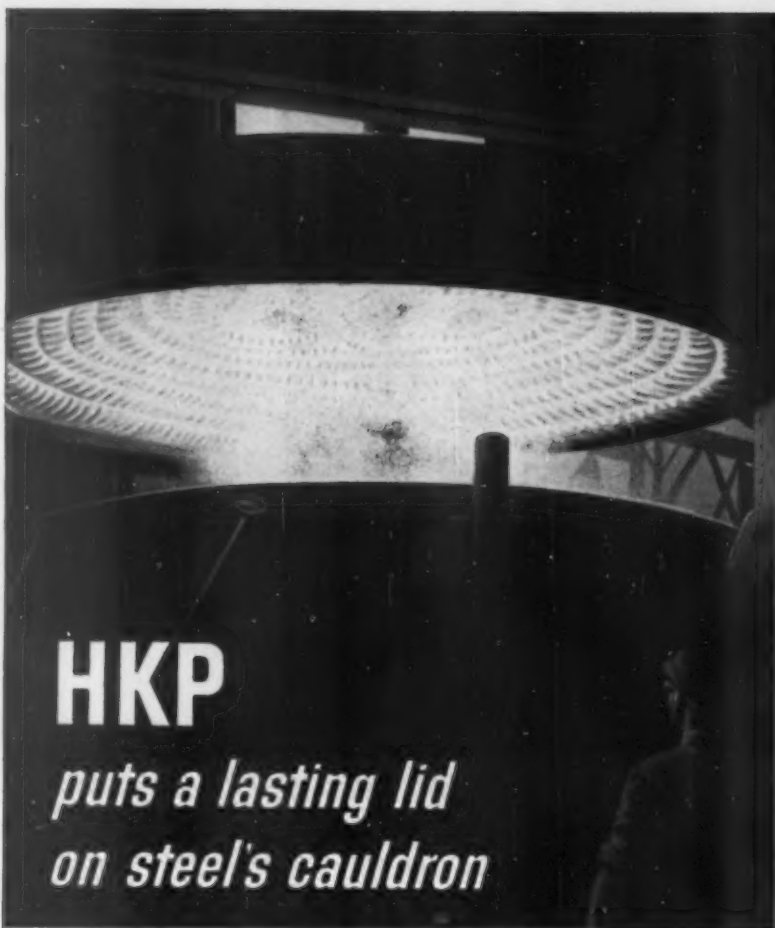
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South Wind Aviation Heat Exchange Products, **INSTANT** and **MINIT** Automotive Heaters;
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Stewart Die Castings; **Hobbs** Electric Hour Meters; **Bassick-Sack** Furniture Hardware.

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Porter's ability to meet specific needs of industry is a result of its planned diversification, which offers services through its divisions manufacturing a wide variety of steel, electrical equipment, refractories, industrial rubber, copper-alloy metal products, fabricated steel products, saws and hand tools, and many others.

Porter refractory products include: fire brick of all types, silica brick, mullite brick, special shapes and refractory specialties, glass industry refractories, vitrified products, ramming mixes, mortars, castables and grains.

H. K. PORTER COMPANY, INC.

CLEVELAND • CONNORS STEEL • DELTA-STAR ELECTRIC • HENRY DISSTON • RIVERSIDE-ALLOY METAL
LESCHEN WIRE ROPE • QUAKER RUBBER • REFRACTORIES • VULCAN CRUCIBLE STEEL • W-S FITTINGS
H. K. PORTER COMPANY (CANADA) LTD.

(a lot of it now on a mass production basis) that has made the American public aware of foreign goods.

Disadvantages still crop up—the need for ordering too far ahead, late shipments, pilferage, the risks involved if a buyer guesses wrong, a lack of steady supply.

But all these, say merchants, are disappearing. Supply is steadier, and, as more foreign countries see the growth of the U.S. market, there are more sources with which to do business.

III. Interest Abroad

Partly this is a result of the wide-ranging U.S. buyers. But perhaps more important, foreign governments are now using all kinds of pressures and incentives to induce their manufacturers to tap the lush dollar market.

In France, where exports have slipped badly in relation to dollar imports, manufacturers are being pushed by the government to increase their penetration of the American market by such measures as a 20% import bonus (in which exporters get a better exchange rate). Lines to be pushed are autos and traditional goods such as wines, liquors, lace, perfumes. A special effort now is being made on manufactured goods like cotton textiles, sports goods, toys, and china.

U.S. retailers are watching particularly a movement now afoot in Paris. The eight designers ranking next to the late Christian Dior (page 146) are working on a program that will enable department stores to import Paris-made and Paris-labeled medium-to-better ready to wear, something Dior would never sanction.

• **Tough Market**—Both France and Britain, however, realize that the U.S. market is a tough one and too few of their manufacturers—especially smaller ones—are participating in the export business.

The Sunday Times in London charged this week that too many British makers think of the export market only when they have surplus domestic goods. Strong efforts are being made by the Board of Trade, Dollar Export Council, and the Federation of British Industries to awaken such companies to the U.S. potential.

France, too, is trying to dispel the idea that smaller firms can't compete in the U.S. The government recently brought back some of its commercial attaches from the U.S. and sent them traveling around France to contact and advise small firms on export possibilities.

In Germany companies that already have a foot in the door are now carrying out market research in America, building larger sales organizations, and advertising on a bigger scale. **END**



**IT'S GOOD FOR YOU—AND THE WHOLE RAILROAD INDUSTRY...
EVERY TIME A FREIGHT CAR ROLLS OUT ON ROLLER BEARINGS!**


Ever see a prosperous town without a railroad track? Highways and skyways are important, of course, but the basic foundation of America's productivity . . . and the prosperity of every citizen . . . is still the familiar rumble of steel wheels on steel rails.

Down through the years, faster and faster freight service has sparked the expansion of our nation's economy by constantly accelerating the flow of raw materials and finished products. Improved equipment has solved every major time-saving problem except one—the *hotbox*. And today this "Achilles' heel" of fast freight is beginning to be

eliminated by a new low-cost roller bearing that soon pays for itself in operating economies.

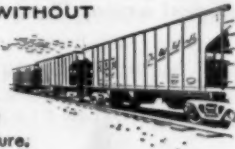
HYATT Hy-Roll Bearings . . . replacing troublesome friction bearings which burden the railroads with needless lubrication, inspection and maintenance costs . . . not only end hotbox delays once and for all, but increase the earning power of cars by keeping them on the go. That's why every new car equipped with HYATT Hy-Rolls helps *all* railroads . . . and through them, helps *you*. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.



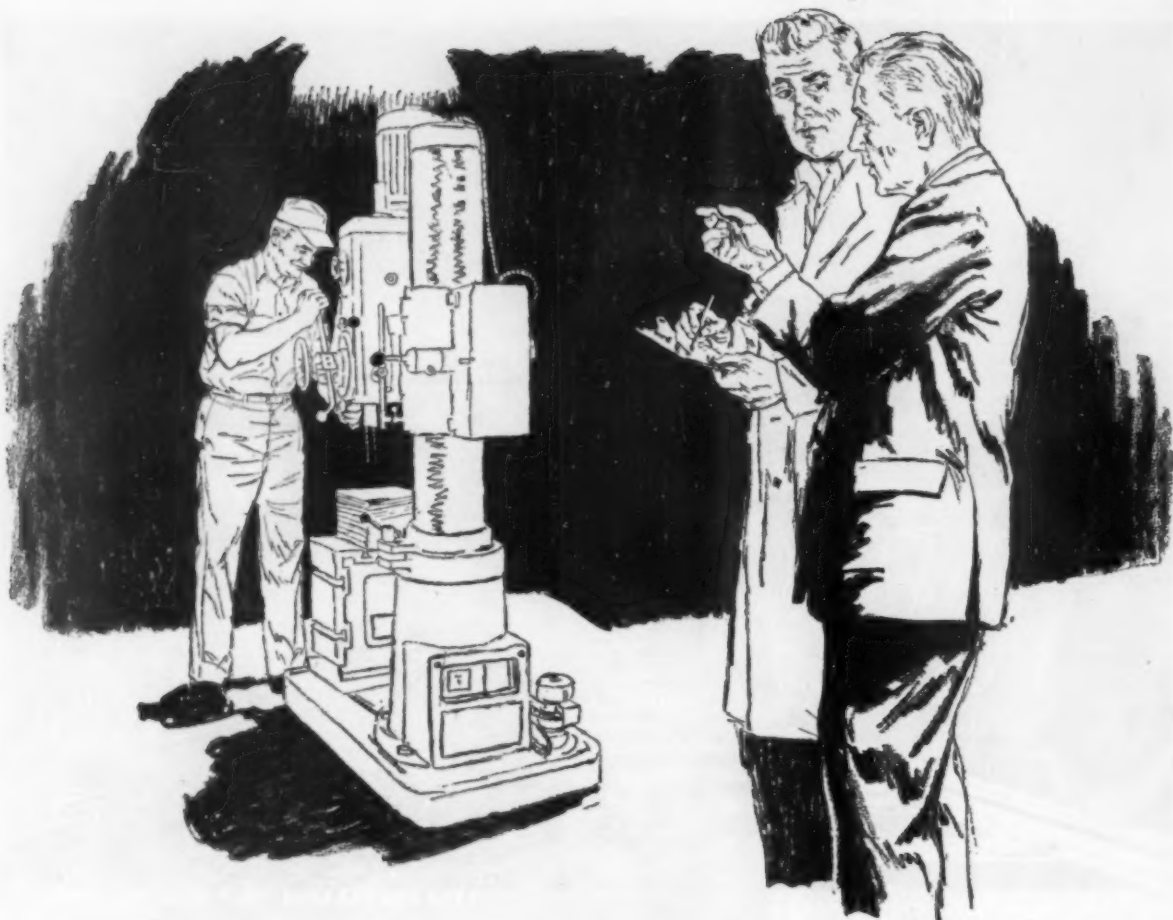
Another  contribution
to railroad
progress

**OVER 14,000,000 MILES WITHOUT
A SINGLE HOTBOX!**

Since April, 1954, 250 L&N ore cars have totaled more than 14,000,000 car miles on Hyatt Hy-Rolls without a bearing failure.



HYATT HY-ROLL BEARINGS
FOR NON-STOP FREIGHT



What does your insurance do to stop accidents?

Travelers Workmen's Compensation and Public Liability insurance goes to work for you *before* accidents happen.

Experienced Travelers safety engineers are available to work with you for the elimination of dangerous machinery and procedures and the establishment of an accident control program for your company.

If you do have a claim, one of the 251 Travelers claim locations is close at hand to give you immediate, efficient service. Physicians and surgeons whose spe-

cialty is industrial medicine are available for consultation on the treatment of injured workers.

And The Travelers employee rehabilitation program assures you that everything humanly possible will be done to restore the worker to good health.

A Travelers Workmen's Compensation and Public Liability expert will design an insurance program for your company at rates that can reflect any reduction in accidents you effect. Call your Travelers agent or broker for full details.



THE TRAVELERS

INSURANCE COMPANIES, HARTFORD 15, CONNECTICUT

All forms of business and personal insurance including
Life • Accident • Group • Fire • Marine • Automobile • Casualty • Bonds

In Marketing

• • •

Quaking Admen Watch the Battle Over Baltimore's Tax on Ads Media

The advertising industry is watching the outcome of a battle shaping up in Baltimore over the city's proposed tax on advertising expenditures and income.

As introduced by Mayor Thomas D'Alesandro, two measures currently before the city council would:

- Place a 7.5% tax on the gross sale price of advertising in newspapers, magazines, directories, programs, periodicals, and other printed matter published in Baltimore; on any outdoor signs or structures carrying advertising; on any vehicle or "airborne device . . . principally operated in the city," and on any intrastate TV or radio broadcast "originating in the city and directed to persons in Maryland."

- Place a 2% tax on the gross income of advertising media in the city. Advertising sales outside the taxing power of the city, as well as sales involving non-profit and governmental bodies, are exempt.

The proposals have aroused the ire of advertisers and advertising media in the city. Organized resistance has developed, with groups planning to appear at a city council hearing scheduled for this week. Feeling in Baltimore advertising circles is that unless the tax is halted there the idea will spread to other communities. It is believed there that this is the first instance where a municipality has attempted to tax advertising specifically.

• • •

Invisible Ads Are Quick as a Flash, But Not Too Quick for FCC'S X-Ray Eye

Subliminal advertising—ads that flash by on movie or TV screens faster than the conscious mind can perceive, yet which purportedly influence buying—has at least one interested audience. The Federal Communications Commission is scrutinizing such advertising to determine whether it should be kept off the airwaves, and if so, whether FCC has the authority to do it.

Subliminal or "invisible" commercials took the spotlight last September when a New York company announced experiments in which it flashed ads on a movie screen at speeds so fast that viewers were unaware they had seen them but were influenced to buy soft drinks and popcorn (BW—Sep.21'57,p30).

Following this announcement, FCC received letters from congressmen and private citizens, asking what action FCC planned to take. FCC Chmn. John C. Doerfer told Rep. William A. Dawson (R—Utah) that his agency is looking into the matter, but pointed out that FCC has no power to censor programs. The agency does review station licenses, however, in the light of public interest, which includes how advertising is presented.

Some observers point out that the speed at which ads must be shown—around 1/3000th of a second—makes it technically impossible to put them on a TV screen. However, one of the companies currently pushing the idea says that its system can be adapted to TV by adjusting the level of brightness at which the ads appear on the screen.

• • •

FTC Charges Three Manufacturers With Discrimination Among Customers

The Federal Trade Commission has moved again against alleged misuse of promotional allowances by national manufacturers. In three separate complaints **FTC charges that General Mills, Inc., Judson Dunaway Corp., and Swanee Paper Corp. have illegally discriminated among their customers by paying allowances to some of them without offering proportionately equal allowances to others.**

The three companies, FTC charges, paid substantial amounts to Grand Union Co., supermarket chain, to have their products advertised on a large neon sign in New York City, without making the payments available to Grand Union's competitors on proportionately equal terms. FTC also charges General Mills and Judson Dunaway with selling products at discounts to some customers on condition they do not sell similar competitive products. These arrangements amount to exclusive dealing, FTC says.

• • •

Marketing Briefs

Carrier Corp. has announced the development of a gas-operated residential air-conditioning unit. Designed for use with gas heating units, the new appliance takes the natural gas industry one step closer to raising summer gas usage nearer that of winter. Arkansas Louisiana Gas Co., which bought Servel's gas air conditioner division, recently announced resumed production of the units (BW—Oct.19'57,p140).

Aldens, Inc., Chicago mail order house, is opening three more catalogue departments in National Tea Co. supermarkets. Success of an experiment in one of the food chain's Elkhart (Ind.) markets prompted the move to more mixed retailing (BW—Jun.1'57,p90).

Progressive Grocer magazine has given the Grocery Manufacturers of American convention some results of a 12-week survey conducted in Super Valu Stores, Inc., markets. Findings include a breakdown of how the consumer spends her supermarket dollar and how various products contribute to profits. Example: Only 22 of the 4,475 grocery and frozen food items carried earn \$5 or more gross profit per week; 3,444 earn less than 50¢.

For the man who has everything, Crawford Door Co., Detroit, is offering gift certificates for garage doors. Crawford, sole national distributor for the GM Delco-Matic automatic garage door, will also sell gift certificates for the \$240 push-button, radio-actuated door opening device.

Why so many companies no longer use labels or stencil boards



Weber Label-Frame System for addressing multiple carton shipments saves time, cuts costs.

Pictured above is a system now accepted as the most efficient method of addressing or marking cartons. Time and cost studies made by present users proves Weber Label-Frame System superior, faster and more economical.

Cartons are pre-printed with label frame by carton manufacturer. Ship-to address is printed inside the frames at a rate of 40 to 50 per minute with a Weber Handprinter. (Carrier Associations enthusiastically approve the sharp, waterproof, fadeproof prints.)

The hand device prints from an inexpensive stencil that can be typed individually or with order-invoice forms. It has a reservoir which holds enough ink for 7,500 to 10,000 impressions. Unit can be supplied with a counter for count control.

Weber marking systems

Weber Marking Systems Division—
Weber Addressing Machine Company, Inc.
Mount Prospect, Illinois

DEALER SALES AND SERVICE
in all principal cities

WEBER MARKING SYSTEMS, Dept. 15-K
Mount Prospect, Illinois
Kindly send us complete information on the
Weber Label-Frame System.

NAME _____
POSITION _____
FIRM _____
STREET _____
CITY _____ ZONE _____ STATE _____

EDUCATION

Red Scientists Start Early

- Soviet education system begins science study in early grades, is heavy on math and science in high school.
- Both high school and college students have bigger work loads than in U. S.—too big, some Soviet doctors say.
- Russia turns out more high school grads than U. S. but still falls short of U. S. university enrollment.

The dazzling Soviet scientific advances have spurred Washington officials into a search for soft spots in our own scientific effort. As Pres. Eisenhower and Congressional leaders made clear this week (page 39), the U. S. educational system—particularly the training of scientists—is high on the list for official attention.

The reason for so much concentration on the education of scientists is clear enough. Military supremacy in this age of the H-bomb and earth-girdling rockets may be won by the side with the largest supply of well trained and well utilized scientists.

• **Lifting the Curtain**—The extent of Soviet scientific manpower was revealed this week when the U. S. Office of Education made public a 226-page study of Education in the U.S.S.R. It gives a detailed picture of how to train young scientists, Soviet style. As a key part of Russia's blueprint for "cold war" supremacy, the picture it paints is bound to set off a flurry of comparisons with our own efforts in this field.

The U.S.S.R., according to the report, operates an enormous educational system geared to the production of trained workers, engineers, and scientists to fill the growing needs of the Soviet economy and warmaking machinery. Permeated with Communist ideology, the system is intended to turn out dedicated Communists to help achieve party and state objectives. Because Soviet "leaders believe that these subjects contribute most directly to mastery and control of the material environment," its curriculum places heavy emphasis on the sciences from the early grade school years on.

• **Fast Growth**—The Soviet government gives high priority in funds and personnel (there's no teacher shortage in Russia) to its schools. Russia's leaders are attempting to telescope into a single generation the development of an educational system surpassing those of the West, which were centuries in developing.

Out of an estimated population of

200-million, the Russians now have about 30-million students enrolled in their 10-year primary-secondary schools—an increase of 18.5-million in 19 years.

These schools operate six days a week, and compress into 10 years the same number of scheduled hours of instruction that are spread over 12 years in the U. S. In 1955, they graduated four times the number of students they graduated in 1951. Last year, Soviet secondary schools graduated 1.5-million students, compared to 1.3-million U. S. high school graduates.

• **Stress on Science**—During his first 10 years of schooling, the typical Soviet student is exposed to a curriculum heavily weighted in the physical and natural sciences, mathematics through trigonometry, and mechanical drawing. Today, 53% of the courses are in the sciences (including math), 47% in other subjects.

They begin this training early, too. By the fourth grade, natural science is studied as a separate subject.

By the time he's ready to go on to advanced training, the Soviet equivalent of the U. S. high school graduate has taken 10 years of math, five years of physics and biology, four of chemistry, and one year of astronomy. In contrast, less than one-third of the U. S. high school grads in 1955 had taken a year of chemistry, and only one in four had a year of physics. Less than a seventh had taken advanced mathematics.

• **Outside the Classroom**—To this intensive grounding in academic subjects, the primary-secondary school system adds a liberal amount of outside activity. The daily load of homework ranges from one to four hours. Physical education includes an hour each week for boys in military instruction (involving for 10th graders rifle and machine gun target shooting with live ammunition).

Students must pass national achievement examinations at the end of the fourth, seventh, and 10th grades, in order to continue their education.

• **Backfire**—There are signs that Soviet

New Era in Fluid Power Sparks Parker-Hannifin Merger



E. G. Peterson, President of Hannifin Division

S. B. Taylor, President of Parker-Hannifin

Fluid power — hydraulics — has become a major factor in the ever-increasing productivity of American industry. Demand for hydraulic components is at an all-time peak . . . and growing.

Now, the merger of The Parker Appliance Company of Cleveland, Ohio, and the Hannifin Corporation of Des Plaines, Illinois, is a vital step toward meeting today's industrial fluid power demands and supplying the type of

"fluid thinking" leadership needed to meet the demands of tomorrow.

Both Parker and Hannifin are leading manufacturers of fluid power equipment; both have established reputations for quality products and outstanding leadership in the hydraulics field. Parker supplies products used to confine or control the flow of gas or liquids under pressure. Hannifin makes air power and hydraulic presses and cylinders, as well as components used

in liquid, gas or air-pressure systems. **This pooling of assets . . .** brain-power and production facilities . . . offers a broad line of top-quality hydraulic equipment and comprehensive technical service for aircraft and industrial fluid power applications — an important development for the future of the entire hydraulics field.

PARKER-HANNIFIN CORPORATION
17325 Euclid Ave. Cleveland 12, Ohio

 **parker-hannifin**
creative leader in fluid systems

Parker-Hannifin operates 9 divisions — with plants in Cleveland, Eaton and St. Marys, Ohio • Des Plaines, Illinois
Berea, Kentucky • Los Angeles, Culver City and Inglewood, California . . . 129 distributors in industrial centers.



"Aisle-designed" Tennant "80" works efficiently; sweeps aisles up to 8 1/2' wide in one round trip

How many dollars will this TENNANT "80" save you daily?

In a medium-sized Cleveland plant, the "80" Power Sweeper saved \$21 a day in labor costs alone. *That's \$5,460 yearly!*

The exact saving you can expect in your plant depends on factors such as area to be swept, obstructions, and present labor costs.

Time studies show the TENNANT "80" replaces 3 to 15 men with push-brooms. It can sweep over 100,000 sq. ft. an hour in open areas. Under typical conditions, it's not unusual for the "80" to pay for itself in a year's time.

Provides clean, dust-free pickup. With its powerful brush-and-vacuum system, the "80" picks up litter that would be missed with hand sweeping. It easily lifts dirt from cracks; handles heavy, bulky debris as readily as light material. Sweeps 42" to 53" path.

Starts, stops, reverses instantly without shifting gears. Dirt hopper holds up to 800 lbs. Dumps hydraulically.

Would you like an estimate of the savings your plant may make . . . based on a personal survey of your needs? *Write today.* You'll be under no obligation.



**Industry's Most Widely Used
POWER SWEEPERS**

G. H. TENNANT COMPANY, 703 N. Lilac Drive, Minneapolis 22, Minnesota



LP gas-powered Model 50 Sweeper Gasoline-powered Model 50 Sweeper Model 36 Electric Sweeper

SPECIALIZED MAINTENANCE EQUIPMENT

POWER SWEEPERS • FLOOR MACHINES • SCARIFIERS • ROOF SCRAPERS • CONCRETE ROUTERS

students are finding this workload, plus the severe rules of discipline governing their scholastic and private behavior, a bit too much to take. A group of prominent Soviet physicians last year publicly charged that the heavy load is endangering the health of school children. They complained of "chronic overexhaustion, frequent headaches, weakened memory and vision, proneness to infectious diseases."

Despite rigorously enforced rules of conduct (or, perhaps, because of them), recent reports from Russia indicate a sharp rise in juvenile delinquency—in the Communist lexicon, "hooliganism."

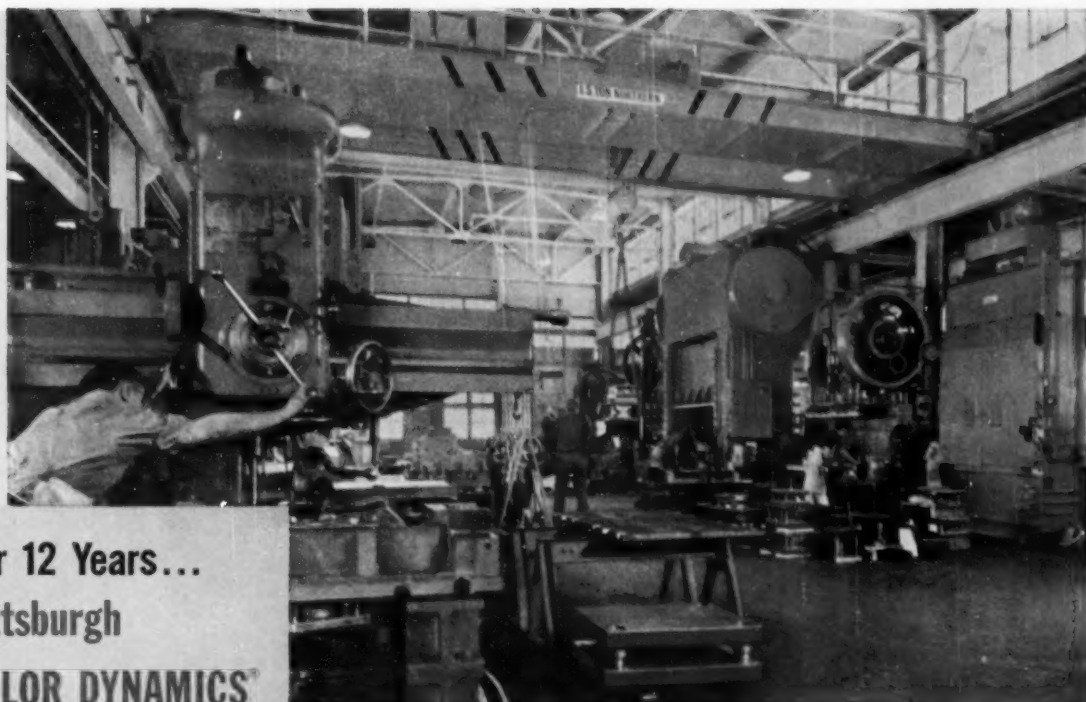
• **Where They Go**—Those who complete this 10-year program are steered—by the government—into factories or mines, vocational or academic schools, depending upon their ability and the needs of the state. The Russians claim that their vocational schools have contributed 7.5-million highly skilled workers in 500 narrowly specialized trades to Soviet industry during the past 15 years. About 1-million boys annually meet the end of the road—educationally—at the 10th grade, are then conscripted for training as workers in mines, on the railroads, and in factories (girls 15 to 18 can be conscripted for similar training).

Their more fortunately endowed former schoolmates go on to more advanced education—in the universities, or in semiprofessional schools (technicums) where they get one or three years of instruction as single-specialty technicians to support the work of professional engineers, lawyers, research scientists, physicians, and so on. Enrollment in the technicums, according to Soviet figures, rose from 189,000 in 1927 to 1,961,000 last year.

• **Universities**—The Soviet Union has chalked up impressive gains in college and university enrollment—though the total still falls short of the U.S. Russian universities had 1,867,000 students last year (up from 169,000 in 1927), the U.S. 2,996,000 (nearly triple the 1927 level).

Here, too, the four to six-year training is intensive. Soviet collegians are subjected to 1,000 to 1,300 hours per year of education (including stepped-up political indoctrination)—double that of the U.S.

For this they are liberally subsidized—with extra pay for high grades and for enrolling in fields where a manpower shortage exists (these stipends are lost by sub-par academic performance). No sheepskin awaits the graduates. These are reserved for postgraduate study—a Candidate of Sciences degree (similar to the U.S. doctorate) and a Doctorate of Sciences for most advanced work. The diploma is mailed to the graduate's future employer—the student doesn't see it. **END**



For 12 Years...

Pittsburgh

COLOR DYNAMICS®

Aids Productive

Efficiency in

Famous Tool Plant

Modern painting system improves working conditions in Davis Tool & Engineering Company, maker of high quality equipment for automotive, aircraft and appliance industries

HOW Pittsburgh COLOR DYNAMICS benefits workers and management has been convincingly demonstrated for the past twelve years in the plant and offices of the Davis Tool & Engineering Company of Detroit.

● This system of painting has created cheerful work areas. Productive efficiency and morale have been improved. Danger of time-loss accidents has been reduced.

● The Davis Tool & Engineering Company is one of the pioneers in the automotive industry. It has a 36-year record of manufacturing tools, dies, fixtures and special machinery

for the automotive, aircraft and appliance industries.

● "Prior to 1946," says President Clarence Davis, "we painted plant and equipment periodically to protect them from wear and deterioration. Then we decided to paint the COLOR DYNAMICS way. We have included our offices in this system.

● "Since we began using focal and eye-rest colors on moving and stationary parts of machinery, we have found our workers see their jobs better.

● "Eye-rest colors on lower walls relieve eye-strain. Colors with high reflectance on upper walls and ceilings improve lighting. This contributes to better workmanship and higher productivity. Safety colors to

mark hazard areas reduce danger of time-loss accidents.

● "At the same time, the pleasing environment has improved the morale of our work force. It has also enhanced our customer as well as employee relations.

● "Buildings and machinery require periodic painting. To paint the COLOR DYNAMICS way costs no more than conventional maintenance painting. The benefits we have enjoyed from this system have proved to be a desirable bonus."

● Thousands of plants have been improved by COLOR DYNAMICS. Why not try it in your plant—and see the difference it makes in productive skill and efficiency?

How You Can Get a Free Color Plan of Your Plant

● We'll be glad to send you a free copy of our fully illustrated book on the use of COLOR DYNAMICS for industry. It explains what this painting system is and how to use it effectively. Better still, we'll be glad to prepare a compre-

hensive color plan of your factory, including detailed color specifications, without cost or obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have our representative see you. Or mail coupon at right.

Send for a Copy of this FREE Book

Pittsburgh Plate Glass Co., Paint Div.,
Dept. BW-117, Pittsburgh 22, Pa.

☐ Please send me a FREE copy of your booklet "COLOR DYNAMICS."

☐ Please have your representative call for a COLOR DYNAMICS survey without obligation on our part.

Name

Street

City County State



PITTSBURGH® PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



Alcoa Wrap Packaging seals in Blue Bonnet's delicious "Flavor Gem" process

Top packaging team—Milprint, Inc., Standard Brands Inc., and Alcoa—uses Alcoa® Aluminum Foil to achieve perfectly airtight quality protection.

Fresh, natural flavor stays in . . . Alcoa Wrap keeps Blue Bonnet at peak of goodness to give that instant burst of natural flavor.

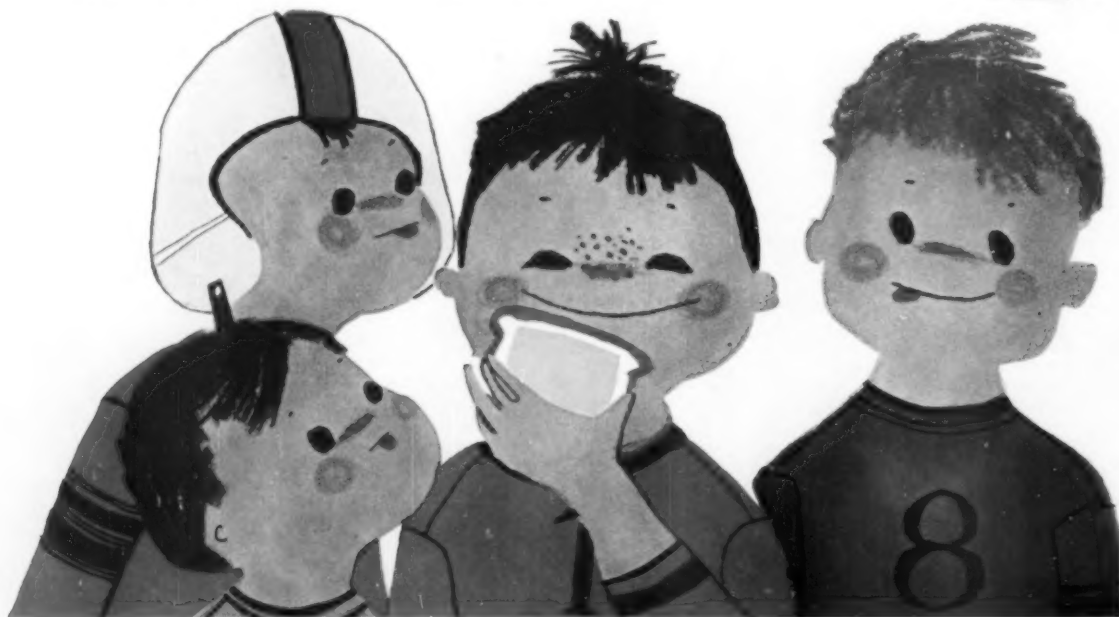
You're always ahead with Alcoa . . . greatest name in aluminum

Golden Alcoa Wrap dresses up Blue Bonnet, too . . . gives a gleaming new eye-catching sales appeal.

CALL YOUR CONVERTER to guarantee and protect freshness, to spark up your product and attract more pick-up sales . . . call your converter and get today's finest packaging—Alcoa Wrap.



NEW!
"ALCOA THEATRE"
Exciting Adventure
Alternate Monday Evenings



In Washington

. . .

Justice Dept. Moves to Cut Texas Down to the Three-Mile Limit

The Eisenhower Administration tried hard this week to be on both sides of an old and very touchy question: Is Texas entitled to an offshore boundary extending beyond the normal three-mile limit?

The Justice Dept., on Atty. Gen. Herbert Brownell's last day in office, filed a petition asking the U. S. Supreme Court to declare that no state—Texas included—has a boundary extending farther than three miles into the Gulf of Mexico.

To a lot of people, especially Texans, the suit came as a surprise. During the 1952 campaign, Pres. Eisenhower won a lot of support in Texas—financial and political—by supporting the state's special claim to a boundary three leagues (10.5 miles) out in the gulf. Most Texans assumed the Submerged Lands Act of 1953, passed by Congress with the President's blessing, upheld their claim.

Actually, the act specified nothing more than state ownership of submerged lands within the coastal states' "historic boundaries."

The White House obviously is reluctant to claim credit for the switch in signals.

In response to an indignant inquiry from Gov. Price Daniel this week, Eisenhower repeated his own conviction that the 1953 act affirmed Texas' claim to a 10.5-mile offshore boundary but added that the court must be the final judge.

. . .

Court Scotches Tie-In Liquor Sales, Says They Violate Antitrust Laws

"Tie-in" sales of liquor are banned under a decision of the U. S. Supreme Court this week. In a unanimous ruling, the court upheld contentions by the federal Alcohol & Tobacco Tax Div. that such sales—in which a wholesaler forces a retailer to buy brands he doesn't want in order to get a supply of brands he does want—violate the Alcoholic Administration Act.

The act makes it unlawful for a wholesaler to induce a retailer to buy distilled spirits exclusively from him by requiring the retailer to take and dispose of a certain "quota" of any of his products.

At issue was whether "tie-in" sales by Magnolia Liquor Co. exclusive wholesaler for Seagram's products in the New Orleans area, violated this law. The government charged that Magnolia required retailers to buy Seagram's Ancient Bottle Gin and Seagram's 7 Crown whiskey (both in ample supply) in order to get Seagram's V.O. Whiskey and Johnny Walker Scotch (both in short supply).

A federal Court of Appeals refused to suspend Magnolia's wholesale liquor permit for the alleged violation, holding that tie-in sales as such did not violate the law.

But Justice William O. Douglas, for the Supreme

Court, ruled the law was meant to prohibit practices "analogous to those prohibited by the antitrust laws"—and tie-in sales have been repeatedly condemned under the antitrust laws. "It seems too clear for extended argument," Douglas ruled, "that the tied-in sale, though it falls short of creating an exclusive outlet and permanently 'tied house,' violates the act."

. . .

Nomination of TVA Friend May Ease Opposition to Jones

Pres. Eisenhower gave Tennessee Valley Authority partisans something to cheer about this week: appointment of Dr. Frank J. Welch to the troubled agency's board of directors.

TVA's supporters say the Welch appointment is the friendliest move the White House has made toward TVA. Welch, a middle-of-the-road Democrat, is dean of agriculture at the University of Kentucky. He has lived his adult life in the TVA region and is portrayed as a friend of the TVA concept. Public power advocates look to him for big help next year when the agency tries once more to obtain Congressional authority to finance its own growth and expansion by issuance of at least \$500-million in revenue bonds.

Like another current TVA member, Arnold Jones, Welch must win Senatorial confirmation next year. For him, it should be a breeze. A Senate committee blocked a vote on Jones last session, when area senators accused him of being unfriendly to TVA—mainly because he was deputy director of the Budget Bureau when the now-repudiated Dixon-Yates contract was drawn up. The Administration hopes at least to soften the opposition to Jones by the nomination of Welch.

. . .

Rifle Sights Maker and Publishers Get Off the Antitrusters' Carpet

The Justice Dept. has accepted a consent decree from three manufacturers, a distributor, and three publishers ending charges of price-fixing on the sale of and advertising of telescopic rifle sights. The case, filed early in 1956, charged that the three manufacturers involved produced about 90% of the \$5-million worth of scopes sold in the U. S.

Antitrusters charged the manufacturers and publishers conspired to eliminate so-called "off-list" dealers—those selling below manufacturers' list prices—by denying them access to supplies of scopes and to appropriate advertising media.

The consent settlement prohibits the manufacturers—including Lyman Gun Sight Corp.—from refusing to sell to "off-list" dealers and forbids any fair trade agreements for a period of seven years.

The publishers—including Popular Science Publishing Co., publisher of Outdoor Life, and Henry Holt & Co., publisher of Field & Stream—are enjoined from any agreements aimed at refusing advertisements in their outdoor magazines by "off-list" dealers and, for a period of 10 years, bars individual action by any publisher in refusing such ads.



No More Stain or Smudge in Spirit Duplicating

It's true!

TRANSOGRAPH is a completely new duplicating process developed by Columbia for use on all existing liquid-type duplicating machines. It's not just cleaner—it's clean!

TRANSOGRAPH PROCESS can readily be integrated with present liquid processes—no special machines or adjustments—no extra machine parts—no special operating technique.

TRANSOGRAPH TRANSFER SETS are clean—non-sensitive to light. There are no printing restrictions—Kissprint—Impress print—Type—Write—Draw—Rule—Tabulate . . . file—rerun.

TRANSOGRAPH FLUID is non-corrosive—contains no oil to coat cylinder—produces brilliant copy.

TRANSOGRAPH COPY PAPER may be used on both sides—light-fast—water-fast—clean.



SEE IT DEMONSTRATED!

For date of local Transograph Demonstration and complete information, write: Columbia Ribbon & Carbon Mfg. Co., Inc., 9711 Herb Hill Road, Glen Cove, N. Y.

Columbia
TRANSOGRAPH
ALL NEW SPIRIT DUPLICATING PROCESS

132 Business Abroad

BUSINESS ABROAD

H. J. Heinz Cooks Up



GRANDSON OF FOUNDER, H. J. Heinz, II, presides over a food company that has been drawing 44% of its sales and 71% of its net earnings from its foreign operations.

BUSINESS WEEK • Nov. 16, 1957

First Venture on the Continent

Already successfully operating in Canada, Britain, and Australia, Heinz moves into Europe's Common Market.

Seventy-one years ago, a Pittsburgher who loved to travel and who had a vast pride in the products that made his travel possible, took a couple of cases of pickles with him to London. These he sold to a 150-year-old provisioning house, thereby starting one of this country's most successful export businesses.

Sixteen years later, this same Pittsburgher returned from a trip to London to inform his directors that he had bought a small British food processor. If his board didn't like it—and it didn't—he was prepared to carry it on as his own personal venture. The board swallowed its annoyance, and that was the start of one of this country's highly successful overseas manufacturing businesses.

Last week, a grandson of that Pittsburgher stepped off a transatlantic plane with his mind pretty well settled on the next move in the evolution of the H. J. Heinz Co. He is H. J. Heinz, II (picture), president of the U.S.-owned, globe-girdling business that in the past two years has drawn 44% of its sales and 71% of its profits from abroad.

This move, to be announced in the next few months, will be Heinz's entry into the manufacture of processed foods on the continent of Europe, in West Germany, the Netherlands, or both.

• **More Expansion**—Heinz already has strong, independently run affiliates in Canada, Britain, and Australia, but this will be its first venture into the non-English-speaking world. It won't be the last. Within two years, Heinz will be manufacturing in Latin America and will have an operation in Portugal that could also grow into a food factory.

"There's a new era on the way at Heinz," says a company officer. He adds that the growth won't all be outside the U.S. In fact, even though Canadian Heinz expects to more than double its capacity in the next decade, he says "there will be more Heinz expansion in the U.S. in the next 10 years than there will be abroad."

I. New Era, Old-Style

It would be a serious mistake to assume from the "new era" phrase that there'll be any marked departure from

the painstaking methods that have characterized the company's 71-year career in foreign operations.

When he faced down his directors on the acquisition of a British company in 1902, founder H. J. Heinz said he'd be satisfied if the business were profitable by the time his grandsons were in it. Grandson H. J. Heinz, II, says the Western European venture would be a good bet if it produces repatriable dividends in 20 years.

Glacial as that may seem, it's one measure of the speedup that the "new era" is bringing to Heinz International.

• **Starting Small**—Traditionally, Heinz's foreign operations have started with a very small investment, all of whose earnings have been plowed back for years on end and whose dividends, when finally taken, have been modest.

That's likely to be the case in West Europe as well, although Heinz says it's possible that the initial investment may be larger than those that kicked off its British, Canadian, and Australian manufacturing operations, respectively, 55, 49, and 22 years ago.

In the new venture, Heinz suggests a willingness to enter a partnership with a foreign producer to market a jointly named brand. This is new stuff for Heinz. But the company anticipates no significant change in its ultra-conservative method of financing foreign ventures.

So traditional an approach to so bold a new venture may be perplexing—except to people who know the Heinz company well. One outsider who does know it thoroughly explains:

"This company will never be extended beyond the control of the available people named Heinz. Regardless of what it might yield, they just don't have to."

II. New Market, Heinz Style

In Western Europe's Common Market area—France, West Germany, Italy, and Benelux—there are 160-million people who eat regularly. Only a few of them eat Heinz-type processed foods. Of these potential customers, H. J. Heinz, II, says quite matter-of-factly, "There's no question they can be persuaded to eat our type of product." He says Heinz West Germany may get into high gear faster than any other Heinz foreign operation did. But he also warns that "it will take quite some time to develop our kind of business in Germany."

• **Enough Cooks Now**—Heinz agrees

with one of his executives that the company should have been manufacturing in Continental Europe several years ago. But he points out that it would not have been possible then for the company to have done the job the Heinz way. There weren't enough internationally minded executives to run the U.S. parent and its three English-speaking affiliates the way internationalist Heinz wanted it run—let alone to staff a wholly new manufacturing venture in the non-English-speaking world.

Today, Heinz says, the company has been internationalized in depth. So it's now sensible to do something that, a few years ago, would merely have been aggressive.

Such an approach may seem lackadaisical. Yet look at what it has yielded:

• **Top spot** in its type of food manufacturing in each of the three foreign countries in which it manufactures. (The U. S. processed food market being so much larger, so regional, and so much more competitive, the obvious comparison isn't entirely a fair one.)

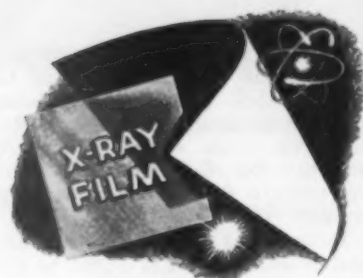
• **The staff, the resources, the savvy, the product line, and the reputation** to exploit the world wide increase in living standards—just about where, when, and as it considers it wise to do so.

• **The Timing**—Just why Heinz con-



CANADIAN HEINZ, headed by Frank Sherk (above), is doubling its operation.

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siders this the time to put such resources to work in Western Europe is pretty simple:

- More people than ever are at work there. The fact that many of them are women, who are no longer free to spend hours each day in the kitchen, makes it that much more attractive.

- Two wars have demolished many European eating traditions. We've had troops and vast relief programs there. Both have helped introduce new types of food, new ways of living.

- A new economic well-being is raising Europe's living standard. That implies more food, better nutrition, more attractive foods, greater variety.

Processed food, particularly that which is dried, is far from novel to West Europe. But the Heinz staples—wet-packaged beans, soups, spaghetti, and baby foods—aren't usual there.

III. Three Cousins

Studying Heinz International, you wonder why it doesn't own a world airline. There's enough travel between Dandenong, Australia, Leamington, Ontario; London, England, and Pittsburgh's north side. Heinz executives and Heinz technicians bob in and out of Heinz plants and Heinz headquarters the world over. As one U.S. officer puts it:

"Anytime a Heinz man has a problem, he has three sources of help—because one of the other three companies has probably already solved it."

- **Exporting Ideas**—Naturally, more help flows out from the U.S. than flows in, for it's in this country that Heinz has the largest staff, the most plants, the greatest experience, the most diverse operating conditions.

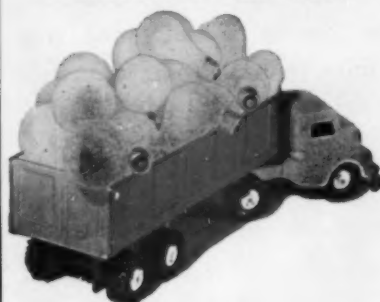
What kind of help? It may be as simple as a new routine for receiving seasonal vegetables smartly. Or it may be as monumental as this:

In 11 postwar years, U.S. Heinz has cut to less than one-fourth the number of growers with whom it contracts for tomatoes. Their contract acreage has dropped almost 50%. Yet from these vastly reduced resources come more than twice the bushels per acre and twice the gross value per acre. Primarily, Heinz achieved this by discovering and demonstrating how to reduce the waste per acre to about 20% of its wartime level.

- **Improving the Breed**—What does such performance mean to the foreign affiliates?

When the dollar shortage ended British Heinz's imports of tomato solids from Canadian Heinz, an alternate supply had to be found—in the sterling area and capable of meeting Heinz quality standards. Neither was immediately to be had. So U.S. Heinz quality

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control people went to work in the tomato paste industry of northern Italy and southern France. They raised standards high enough to multiply Italian exports to British Heinz by five times in seven years.

As a result, the problem has become one of boosting world supply of tomato solids. (That's why Heinz is undertaking a crop-development program in Portugal.) So U.S. Heinz is working with Italian canners, showing them how to introduce the contract-farming methods that paid off so handsomely in this country after World War I.

This will be quite an accomplishment for an agriculture which, by Heinz standards, has been growing substandard tomatoes for a century.

• **Different Problems**—While they struggle with that, U.S. Heinz technicians have a new problem at home. The company's U.S. tomato contracting has become so efficient as to have gravely narrowed its margin for error. With so few contract farmers, you can't afford a single crop failure.

In Australia, the problem differed diametrically from Italy. Australia's agriculture had been pastoral. For a self-contained—and greatly expanded—food economy, it had to be redirected into row crops. Thus, as it does in this country, Heinz went to work with Australian farmers to help them develop quality crops. It has been so successful that Australian Heinz now looks to exporting one day.

• **Foreign Superlatives**—Mutual assistance even flows between foreign affiliates without going through the U.S.

Canadian Heinz is installing a continuous sterilizer from England—the first, it claims, in North America. It has a machine that closes baby food cans twice as fast as the best U.S. Heinz machine (again a comparison that for technical reasons, isn't entirely fair). It operates the biggest tomato-processing plant in the world, has developed and markets about 50 more varieties of baby foods than U.S. Heinz.

And British Heinz, which introduced baked beans as an entirely new food to the English, made beans for a decade before it sold enough to wad a shotgun. For years now, it has sold more beans in the U.K. than its parent sells in the U.S.

IV. Autonomy, Heinz Style

It's a neat question whether Heinz's foreign affiliates are autonomous because they can match the parent company at its own game or vice versa. In either event, Heinz managers everywhere run their own show.

• **Local Talent**—It starts when Heinz enters a new country. As well as on earning a profit with which to expand the business, Heinz puts high priority



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on developing local people to operate and manage the plants.

British Heinz has been English-run for years. Five years ago a Canadian, Frank Sherk (picture, page 132), became executive vice-president of Canadian Heinz. (All Heinz companies are headed by H. J. Heinz, II.) And last year, he became a member of the five-man executive committee of Heinz International. The Australian company is still operated by a Scot but is otherwise wholly staffed by Australians.

This 71-year-old insistence on having local people run the whole show as promptly as possible is, of course, one of the principal reasons why the Heinz company proceeds so deliberately in its foreign expansion. If you insist on a uniform Heinz standard everywhere in the world—and Heinz certainly does—you must take the time to develop Heinz people everywhere. It's either that or send Americans everywhere to manage foreign properties. Heinz would about as soon do that as to export an off-color bottle of ketchup.



Mexican Winner?

Ruling party is set to pick Lopez Mateos for presidential nomination—and election—but a hitch could come.

This weekend Mexico's Partido Revolucionario Institucional meets to pick the next president of the republic. All signs point to the nomination of the current secretary of labor, Adolfo Lopez Mateos (picture). And in Mexico, where the PRI holds a benevolent political monopoly, its nomination is tantamount to election.

If rumors are right and Lopez Mateos

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is the "tapado"—"the man in the hood" agreed on by the PRI bosses—most U.S. businessmen in Mexico will feel reassured. Lopez Mateos is considered a middle-of-the-roader like outgoing Pres. Adolfo Ruiz Cortines. Indeed, the only other candidate being talked up is another moderate, Gilberto Flores Munoz, now secretary of agriculture.

• **Prospect—Businessmen**—Mexicans and foreigners—aren't really much concerned about the election. Most feel that only the wildest kind of politician could change the present prosperous direction of Mexican development. The next six years ought to see a continuation of the progress made under Ruiz Cortines, although for all kinds of reasons the fantastic rate of growth may slacken off. And since the PRI's control of the situation has never seemed more certain, an orderly transfer from one administration to another is assured.

At midweek Lopez Mateos certainly seemed to have the inside track. But Mexico City oldtimers warn that anything can happen in PRI politics, and that he may still not get the nod at the party convention.

• **Conciliator**—Although virtually unknown in the U.S., Lopez Mateos has made a name for himself in the rough-and-tumble of Mexico's political maneuvering—particularly in labor affairs. He has introduced a voice of conciliation and moderation in trade union disputes—not a small accomplishment when you consider Mexico's history of nationalist outburst and Communist infiltration.

Lopez Mateos was born in 1910. He served as a senator during the administration of Pres. Miguel Aleman. When Pres. Ruiz Cortines got the nod from the PRI, Lopez Mateos entered the cabinet after the election.

Lopez Mateos is a friendly—if somewhat reserved—six-footer. He has several close American friends.

He is the youngest member of the cabinet. But that hasn't kept him from making his political ideas pretty clear. He often uses a phrase that probably sums up his approach: "Class struggle must have class cooperation in order to achieve good results." In Mexico, where every politician must declare himself a revolutionary and the child of the Mexican Revolution, that is moderation.

• **Possible Hitch**—This moderate line could keep Lopez Mateos out of the presidency. Ruiz Cortines got the nomination with the help of ex-Pres. Lazaro Cardenas, probably still the most powerful single voice in Mexican politics and the leader of the PRI's nationalist wing. There is evidence Cardenas and his followers haven't been too happy with some aspects of Ruiz Cortines' moderation, and might not want it continued for six more years. **END**



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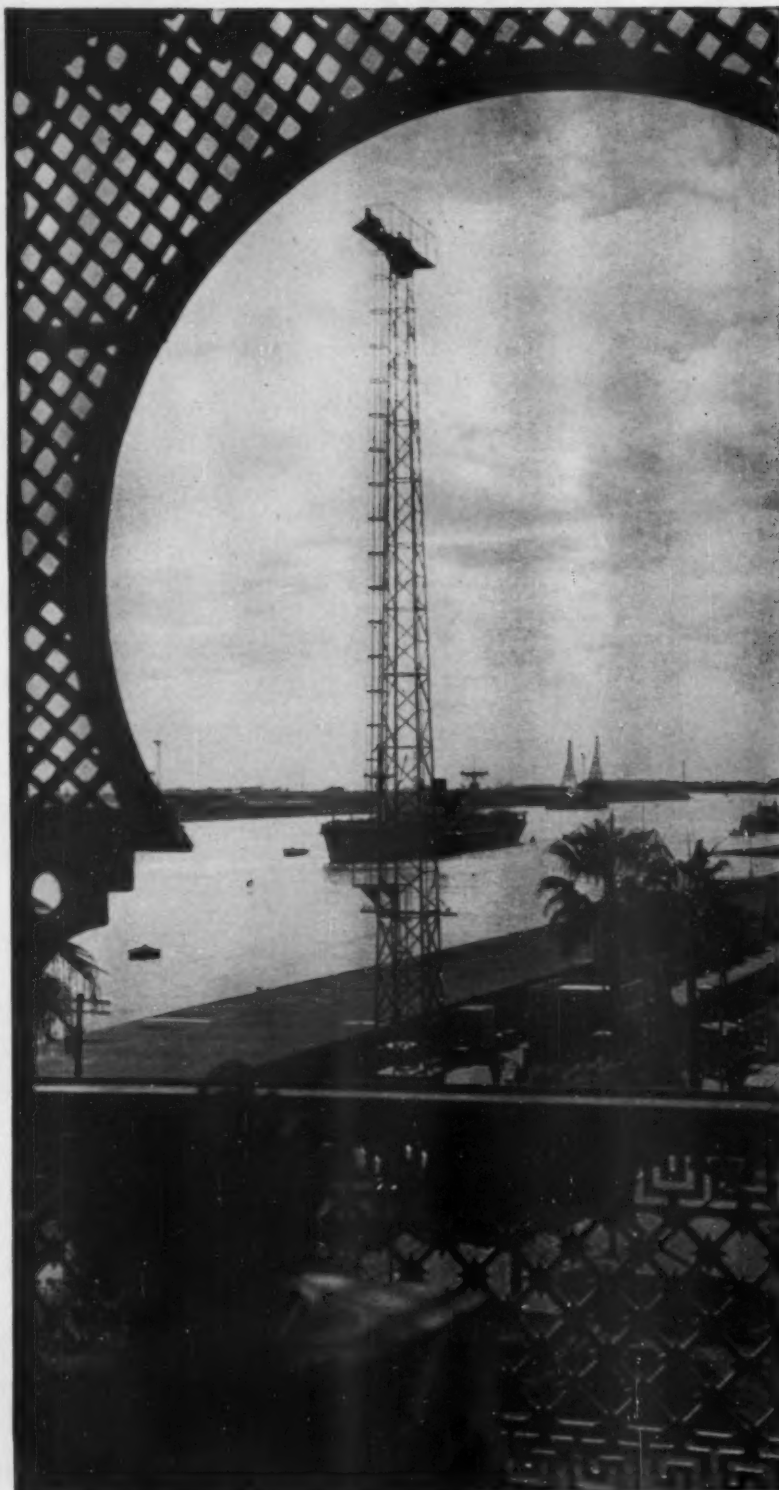
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Is Nasser Ready



SUEZ CANAL, nationalized last year, is operating. But Nasser has less of a stranglehold. Reason is, West now has more tankers than it needs to ferry Middle East oil.

for a Deal With West?

His country's rocky economy may force the dictator to talk turkey with the West on a Suez Canal Co. settlement.

This week, Eugene Black (top right), veteran of many an international horse trade, was shuttling back and forth between Cairo and Paris, acting as broker between Egypt's Pres. Gamal Abdel Nasser (bottom right) and officials of the International Suez Canal Co. One year after Egypt's unilateral nationalization of the Suez Canal, there is more at stake than a financial statement. There are signs that Nasser may be seeking an over-all deal with the West, that his honeymoon with Soviet penetration of the Middle East may be over.

• **Hints**—Nothing so clearcut as that is yet apparent, though. For even while Nasser was talking with Black, his government-controlled press and radio loosed a vicious campaign against Jordan's King Hussein—a Western ally in the Arab camp.

Nor is there evidence that Washington has told Black, president of the World Bank, to do more than try his hand at settlement of the canal issue. Still, the speculation is that that sort of settlement would be the beginning of a reconciliation between the West and Nasser. A program to pay off Suez Canal Co. stockholders would be the kind of concrete act of friendliness toward the West that State Secy. Dulles has said the U.S. must have before it can go further in patching up U.S. differences with Egypt.

• **Evidence**—Speculation that Egypt might be willing to talk turkey with the West is based on several pieces of evidence: Most important is the fact that Nasser needs Western economic aid. His Suez Canal Authority is operating the canal—fairly efficiently, according to most Western observers. But the canal is silting up, already can't take large tankers fully loaded. Egypt's economy badly needs foreign exchange funds tied up in London and Paris banks, and Western markets. Long-staple cotton, Egypt's most important export, is selling at a third its last year's price. And there's considerable evidence that Soviet and East European Communist promises to come to Egypt's aid economically haven't been kept.

Yet, the general tendency in London and Washington is to demand bonafides from Nasser before any deal is struck. Cynics are saying that Nasser's only purpose in undertaking the current talks is to thaw Egypt's frozen assets in Britain, France, and the U.S. Once

he gets his hands on these funds, they say, he will once again turn toward the Soviets, using Communist help in securing his ascendancy in the Arab bloc.

• **Less Pinch**—Despite growing Soviet power in the Middle East, Nasser himself has less of a stranglehold on the West than he had a year ago when the Anglo-French-Israeli forces attacked Egypt. The main reason is that the West has more tankers available to carry oil. Despite projections of tremendous growth in demand for Middle East oil in Western Europe—and the U.S.—London shipping sources predict the current tanker surplus is likely to last for another three to five years. One big international company at least, British Petroleum, is now routing its largest tankers around Africa. BP says that it is cheaper to let them take the long route full than send them through the canal, then have them laid up.

• **Rocky Economy**—But the better oil situation is only one of the points of leverage the West has on Nasser. At home, his own economy grows daily more rocky. The Soviet bloc took only about half of Egypt's cotton crop last year, its main foreign exchange earner. Even if Nasser would like to continue to barter with the Communists, he must try to sell this year's crop for hard currency in order to buy tea, sugar, pharmaceuticals, and other consumers goods badly short in Egypt now. Total sales ending February, 1957, were \$122-million—including shipments to the Soviet bloc—compared with \$168-million for the previous year.

Nor has Suez Canal nationalization been an unmingled blessing for Nasser. Whatever prestige he gained must now be balanced with its growing obsolescence as a world trade artery. Mahmoud Youness, the Egyptian official running the canal, claims total cargo tonnage now passing through has reached and even surpassed pre-nationalization totals. But London and Paris shipping sources don't believe it. They agree that more ships are transiting the canal than pre-nationalization, that they get efficient and courteous service from the Egyptian administration. But the 35-ft. draft that the old Suez Canal Co. maintained and that this year was to have been deepened to 36 ft., has now silted up. Even 32,000-ton tankers can't get through fully loaded.

• **Vicious Circle**—Egypt blames the West for this situation. It's true that because of the freezing of Egyptian assets in the West, the new canal administrators haven't been able to buy new dredging equipment or repair the old facilities destroyed in the Anglo-French military action last fall. (This



EUGENE BLACK, president of World Bank, seeks a payoff for Suez Canal Co., might offer credit in return.



DICTATOR Nasser must choose allegiance to Soviets or Western economic aid.

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week the Egyptians did announce a program to buy \$6-million worth of dredges and other machinery.) You see what the problem is from the fact that during 1955 Britain exported \$80.4-million worth of goods to Egypt, largely machine tools, electrical machinery, vehicles, and aircraft. These supplies have now been cut off for a year.

Both London and Paris are adamant that before trade can start flowing again, the Suez Canal Co. claim against Nasser will have to be settled. The big issue is what Nasser is to pay for the physical assets of the Universal Suez Canal Co., which he seized in Egypt. A beginning figure in the negotiations would probably top \$500-million. Meanwhile, the company has already turned itself—with its \$182.4-million worth of assets outside Egypt—into an investment trust. But it demands compensation for what Nasser took in Egypt, also for the 12 years of its uncompleted concession to run the canal.

• **Top-Level Talks**—Meanwhile, both the British and the French are carrying on talks with the Egyptians on a government-to-government level. The

Anglo-Egyptian talks are being held in Rome. The Egyptians' main interest is the release of \$270.6-million worth of sterling that the British froze when Nasser nationalized the canal. The main topic of the British is the so-called "sequestration" of British assets in Egypt and the reimbursement for some property—banks and insurance firms—which were "Egyptianized."

The Franco-Egyptian talks resumed at midweek in Geneva. Paris is generally optimistic that a deal will be made to indemnify French citizens for property seized during the Suez conflict. This week, for the first time since nationalization, Egyptian authorities permitted a French air transport company to land in Cairo. French textile mills have also received their first shipments of cotton since the hostilities.

• **The Deal**—Against this background, Black is apparently prepared to offer a deal. If Nasser will definitely settle with the Suez Canal Co., the World Bank will consider large-scale loans that could be used to renovate the canal, and to carry out the old Canal Co.'s program designed to enable canal traffic to grow with world commerce.

Coming Fight Over Tariffs

The White House polishes up its liberal trade program. But powerful protectionists also prepare for battle.

White House foreign trade advisers this week began putting the final polish on the foreign trade program that Pres. Eisenhower will send to Capitol Hill in January. This program is to be one of Eisenhower's legislative "musts" for the coming session of Congress.

Actually, the White House trade program is only one part of what is shaping up as the roughest political fight over foreign trade in a quarter-century. Protectionist sentiment in the country seems to be reaching the strength of Smoot-Hawley days. And this is happening just as post-Sputnik concern for strengthening the inflation-torn economies of our Western allies has put new props under Eisenhower's liberal trade leanings and his attachment to reciprocal trade agreements.

• **Fields of Battle**—Because extension of the Reciprocal Trade Act is the basis for U.S. participation in international trade programs, it will be the main bone of contention on Capitol Hill next year. But debate on it will broaden to cover such related pending matters as:

• **U.S. membership** in the proposed Organization for Trade Cooperation, which is to police negotiations under the General Agreement on Tariffs and Trade (GATT).

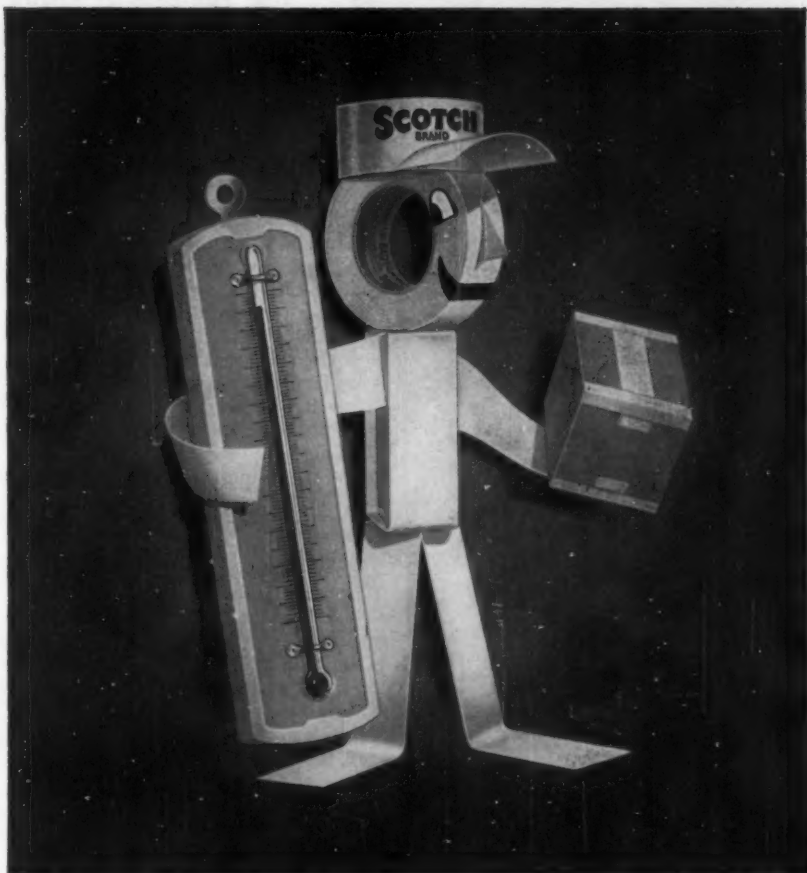
• **Revision of U.S. anti-dumping laws.**

• **Defense-essentiality provisions** under which domestic producers appeal for tariff and quota relief on grounds that import competition threatens national security.

Because of the importance and interest in the official White House position, Eisenhower may announce his 1958 program within a week or two—not later than his meeting with Congressional leaders on Dec. 3.

• **Committed**—The Administration is firmly committed to a liberal program. The question is how strong a package of laws it will actually ask, and what its strategy will be against protectionist opposition.

Some tip-offs already have been allowed to drop, possibly as trial balloons. Vice-Pres. Nixon, in his speech before the International Industrial Development Conference in San Francisco last month, endorsed a five-year extension for the Trade Agreements Act, instead of the usual three-year request (last time it was extended for two years), and U.S. membership in the controversial OTC. Chief White House trade adviser Clarence Randall has said Eisenhower will also ask "substantial" new authority to cut tariffs. On both these



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Wilderness Freighters

Take a look at the map of the world. Most of the land areas you see have very few highways. And the roads that they do have are usually pretty bad.

Now these areas are badly in need of development. But how can boxcar-size loads of heavy machines and supplies be moved into them to get the work started?

The ideal answer would be some way to travel right through these roadless areas, or else over the rough, hacked-out trails which are already there.

Ordinary trucks haven't got the traction, the flotation, the power, or the strength to handle this kind of job efficiently and economically — although we all know you can't beat them on the highways they were designed for.

This is a big problem—the kind it takes a big machine to answer.

Our answer is a new kind of super-powerful truck designed just for this job — and we've built them to haul loads up to 125 tons. We call them LeTourneau Transporters.

Take a medium-sized Transporter, for example. It's mounted on tires that stand 6 feet high and measure 2½ feet across, and can carry 60,000 pounds of cargo.

Like its bigger brothers, it will move its load across sand, snow, mud, through underbrush and up steep grades, to do the job an ordinary truck does on a highway.

This particular Transporter is a six-wheel vehicle, with power in all six wheels. The military would call it a 6x6. However, the similarity with other haulers ends right there.



by R. G. LeTOURNEAU

This machine is equipped with electric wheels. Each one is sort of an independent power package, with its own electric motor and gear reduction built inside.

We've seen one of our electric 6x6 Transporters roll up to a vertical concrete wall three feet high and smoothly lift itself right over without any slip, fuss or muss. We've also seen it carry a 30-ton load up a 40% grade.

You can slam on the brakes without wearing them out . . . they're electric, too. With our dynamic braking, the fingers of magnetism reach through the steel and across an air gap to hold the machine back. This brake system is good for a lifetime, no matter how much you use it, because it doesn't have any parts to wear out.

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Such a machine is a good example of what the big out-door jobs take. Each type and size of job, though, has its own problems, which of course, suits us because we build the machinery to fit the job, whether it's logging, land clearing, off-shore drilling or heavy material handling in some distant wilderness. If your problem needs a solution as big as those we build for other people, we'd like to help. Let us hear from you.

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"... the reciprocal trade law has squeaked past Congress by slimmer and slimmer margins ..."

STORY starts on p. 142

points, the President is getting strong backing from the U.S. Council of the International Chamber of Commerce.

Against this, protectionist forces in Congress have already announced their goals:

- Substituting Congressional review for the President's veto authority over Tariff Commission findings.

- Reduction of the President's authority to negotiate tariff cuts through GATT.

- New quota-setting powers for the Tariff Commission.

- Defeat of OTC.

Led by Daniel Reed (R-N. Y.), and Richard Simpson (R-Pa.) on the House Ways & Means Committee, and by Rep. Cleveland Bailey (D-W. Va.), protectionist sympathizers say they will write in new quotas on selected domestically produced items on the floors of the House and Senate if their amendments fail. Failing this, they say they have the votes to defeat the trade law extension bill outright.

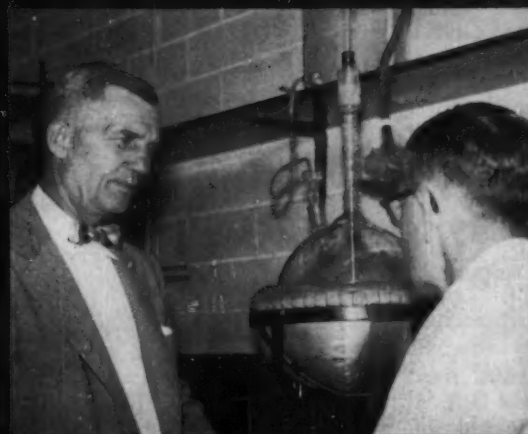
- **Voting Strength**—Strong protectionist trade groups such as the American Tariff League support these aims and other restricting amendments. One would remove the requirement of showing injury to a domestic industry before countervailing duties are imposed on imports. The Administration already has endorsed an amendment to this law, which would allow the Treasury Dept. to take into consideration an exporting nation's domestic price rather than the "freely offered" world market price in determining the so-called fair value below which exports are subject to the countervailing duties. This passed the House, is pending in the Senate.

- **Free Trade Hopes**—Liberal traders on Capitol Hill rest their hopes on a thorough study and review of existing trade programs now being conducted by the foreign trade policy subcommittee of the House Ways & Means Committee.

Privately, liberal-trade proponents fear for their case. The reciprocal trade law has squeaked past Congress by slimmer and slimmer margins; last time it passed the Senate by only one vote. Now, the liberal traders fear that in order to save the law itself as a symbol to which the Administration is pledged, the White House may accept further restrictions.

White House strategists also privately hint they may send a stronger program to the Hill so that a compromise or two would not wreck the program. **END**

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In Business Abroad

• • •

Britain Resists Pressure for Bars

On Imports of Asian Cotton Cloth

Britain's Board of Trade is still resisting pressure from Lancashire manufacturers of cotton cloth to clamp restrictions on imports from Asia. For two years, the Lancashire cotton producers have been suffering from imports of cheaper Indian, Japanese, and Hong Kong products. Pakistan will soon be adding to the problem. At the present rate, 200-million yd. of cotton from India alone are expected to enter Britain this year.

The industry—after petitioning the government without success—sent a delegation to India last February. India agreed to curtail cotton exports to Britain if Hong Kong and Pakistan would also agree. India agreed to voluntary restrictions if the other Asian producers would go along. Hong Kong refused, and Pakistan set up certain conditions. Sir David Eccles, chairman of the Board of Trade, has promised that the government will enforce any voluntary agreement that can be worked out between manufacturers in Asia and the U.K. Negotiations are continuing.

• • •

Planes With a French Accent

Zoom Into U. S. Aircraft Industry

For the first time in 20 years, the French aircraft industry has rung up a sale in the U. S. Late last month, Morane-Saulnier announced it had sold two twin-jet executive aircraft to Beech Aircraft, its U. S. sales representative. Beech also has optioned eight more of the planes.

The airplane, called the Paris, is a sleek little four-seater job. It was first flown in 1954, has a top speed of 410 mph., and a maximum range of 1,000 miles. Beech, which also has the manufacturing rights for the U. S., has sold one to Timken Roller Bearing. The second will be used for demonstration. No price has been announced.

• • •

Texas Natural Gas Company Joins Trek To Potential Oilfields of Sahara Desert

International interest in Sahara oil is growing. Paris reports that West German, Belgian, and Canadian, as well as U. S. companies are currently dickering for permits. The permits would cover concessions in a 14,000-sq. mi. area due to be distributed in January, another 8,000-sq. mi. area due for redistribution in March, and another 55,000-sq. mi. area to be parceled out in May.

Latest American entry is Texas Eastern Transmission Corp., which is negotiating with the French government

and talking with potential French partners. The company may file an application for an area before Dec. 2, the next deadline in parceling out the concessions. Texas Eastern—well known for its natural gas transport and pipeline operations—also owns La Gloria Oil Co. La Gloria has 600 producing wells in Texas.

Texas Eastern officials in Paris say its Sahara plans include possible oil exploration, gas production, and pipeline construction. The company says it is also interested in other parts of French Africa—Mauretania in West Africa, Senegal, and Gabon. If its exploration program develops, a company spokesman said Texas Eastern would probably invite other American companies to participate in its African operations.

• • •

Dior Disciples Plan to Step Into the Master's Shoes

Textile magnate Marcel Boussac—the man who sponsored Christian Dior on his postwar climb to the top of French "haute couture"—will continue to back Dior's staff. The word in Paris this week is that two young designers who worked under Dior will continue to style the clothes of Chez Dior. Dior's close associate, Mme. Raymonde Zehnacker, will run the administrative side.

The whole fashion world will sit back and wait for next spring's collection. The first collection of the two young Dior-trained designers, Yves-Mathieu Saint-Laurent and Gaston—are apt to make or break them. Meanwhile, other young couturiers trained by Dior see their chance to step into the master's shoes. There are also plans afoot to expand Dior's U. S. business.

Dior's tie-in with Boussac was a phenomenal success in the French fashion world that hasn't seen many in the last 25 years (BW—Feb. 16 '57 p. 69). Dior was able to concentrate on design, didn't have to worry about accounts. The deal turned profitable for Boussac. Chez Dior netted \$3-million in 1956—with Dior getting a \$75,000 salary. And Boussac's textiles cashed in on the worldwide popularity of Dior fashions.

• • •

Nipponese Companies Join Forces To Exploit Bauxite Reserves in Borneo

Three Japanese aluminum refining companies have a plan to form a joint bauxite development company with Aluminium Ltd. of Montreal and the Ott group of the Netherlands. The partners would exploit bauxite deposits located in British-protected Sarawak, Borneo.

Production is expected to be about 175,000 tons annually, most of it going to the three Japanese companies—Nippon Light Metal Co., Showa Denko, and Sumitomo Chemical Co. Japan now imports a total of about 400,000 tons of bauxite annually—300,000 tons of this for domestic use, the rest to be processed and exported.

The new company would be an equal partnership. Aluminium already is a 50% stockholder in Nippon Light Metal Co.

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Typical of the thriving, busy cities of Upstate New York is Albany, the State Capital (left). More and more firms are expanding in Upstate New York. One of many reasons is the new Thruway which flows through the heart of the Niagara Mohawk System.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

NOV. 16, 1957



Washington is working overtime to prepare for next month's NATO conference—a meeting of immense importance to our security.

The preparations are a sobering business for U. S. officials. The closer they look at our problems with NATO, the tougher the decisions seem.

How to reestablish U. S. leadership in NATO? That's the real problem for Pres. Eisenhower and Secy. of State Dulles.

From Korea to the Suez and Hungarian crises of a year ago, our leadership was unquestioned. No one in Western Europe doubted our will to oppose Communism, our intention to defend Western Europe, and our deterrent military power.

But in the year since Suez two things have happened. There was a sudden jump last winter in Washington's sense of world power; it reached the point where U. S. officials thought of NATO as just one in a string of alliances. Our NATO partners wondered whether the alliance would last. Then, this fall, came the sudden deflation in Washington's sense of power, as Russia seized the lead in missiles. Our stock has slumped to the point where Western Europe wonders whether the U. S. air-atomic umbrella can protect them much longer.

At midweek European observers were saying that, if Eisenhower wants to make the NATO meeting a real success, he will have to provide two things:

- Complete assurance, perhaps by calling a special session of Congress before the Paris meeting, that the U. S. will share its military secrets.
- Agreement to share control over NATO stockpiles of nuclear weapons, perhaps by establishing a special control committee in NATO.

If the Administration moves fast enough and far enough, it can probably rebuild NATO's strength—perhaps make it stronger than ever.

We might even get the big NATO countries to go in for real national specialization. For example, France might give up its navy, concentrate on air power. West Germany might devote all its energy to atomic-equipped ground forces. Britain might take over production of one range of defensive missiles, while the U. S. concentrated on other defensive missiles—plus the intermediate and intercontinental ballistic missiles.

It looks now as if the Macmillan government will win its battle against wage inflation in Britain. The victory may come this winter without any really crippling strikes. If that's the case, sterling should be a pretty strong currency by this time next year.

The wage issue can still produce plenty of strong language and perhaps some nasty disputes. But the upshot is likely to be an average wage increase of about 3%, as against the 7% to 8% increases of recent years.

The expected showdown over wages is resolving itself into rather calm, tricorned talks between unions, management, and government.

The unions want more than just pay increases. They want a political deal including some curb on dividends, a reimposition of rent control and some show of price control.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

NOV. 16, 1957

The government is yielding on the first demand. Prime Minister Macmillan already has started appealing to business to hold down dividends. Such appeals are effective in times of tight money, when management wants to conserve cash rather than pass on profits to stockholders.

On rent and price controls, the government refuses to give ground. Prices are stabilizing anyway, due to the fall in prices of imported food and raw materials.

—●—

The strains on European currencies are being eased by a flow of funds out of West Germany. Until this fall the flow had been the other way.

One of the main reasons for the reversal is the drop in German interest rates. While German business for some time had been borrowing on a huge scale abroad, especially in Amsterdam and London, now it is turning to German financial institutions. At the same time, German commercial banks are quickly building up balances abroad. Deutsche Bank of Frankfurt has subscribed to \$50-million worth of Dutch one-year treasury bills at 5½%. This compares with a German treasury bill rate of 3¾%. Other German banks have placed substantial amounts of seven-day deposits in London. There the rate is over 5%, compared with under 3½% in Frankfurt.

—●—

In a bold move, the Algerian rebels have started to strike against oil exploration parties in the Sahara.

So far, Royal Dutch Shell has been the main victim of rebel ambushes. But it may be the turn of U.S. companies someday. Sinclair, Phillips, Cities Service, and Newmont Mining are among those applying for exploration permits in the Sahara. Other companies, including J. Paul Getty's Tidewater, also want to move in.

The rebel tactic probably is meant as a warning to the oil companies. It is one way of saying that any oil deals made with the French will be void when Algeria is on its own.

—●—

The Filipinos showed some political maturity this week. They voted without the violence that has characterized other postwar elections—and in spite of a typhoon.

The victory went to incumbent Pres. Carlos P. Garcia, who took over last year from the late Pres. Ramon Magsaysay. For vice-president, the voters chose a respected liberal economist who ran on another party ticket.

—●—

The U.S. may soon face a ticklish problem in Southeast Asia. Indonesia's pro-Communist Pres. Soekarno has launched a campaign of intimidation against the 75,000 Dutch residents of Indonesia. (The Dutch still have sizable investments, perhaps totaling as much as \$1-billion.)

Soekarno makes no bones about what he is doing. It is simple blackmail to force the Dutch to turn over West New Guinea to the Indonesians. This was the only part of the archipelago not surrendered by the Dutch in 1949.

The Dutch government, with strong Australian backing, says it won't give in.

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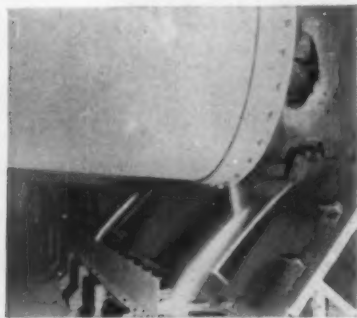


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1 These Imperial executives put color in your life: Alfred E. Van Wirt (left), vice president and technical director; Arthur F. Brown, president. "High-fashion wallpaper and uniform pigment colors require unceasing research and painstaking craftsmanship to

produce," Mr. Brown states. "They also call for the highest quality raw materials. We know from experience that Wyandotte meets our exacting standards. And they're always ready with helpful technical assistance, should we need it."



2 Imperial produces chromate pigments of many hues by roasting chromite ore and Wyandotte Soda Ash in rotary kilns. An economical alkali, Wyandotte Soda Ash is indispensable to such industries as glass, paper, chemicals, and textiles.



3 Pull-down test gives quality check on pigment, paint or ink formulas; determines uniformity of shade, strength, gloss. Formulations for paint and ink often call for Wyandotte PURECAL®—to improve brightness, hiding power; eliminate settling.



4 Technician checks equipment that subjects color swatches to standardized ultraviolet light, thus evaluating the color fastness of pigments. Wyandotte products, too, pass rigorous tests to assure customers of continuous high quality.



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And, according to Arthur F. Brown, president of Imperial Paper and Color Corporation — world's largest producer of chemical pigment colors — "The future for color is bright. In fact, everything you see, eat, or touch will soon be more colorful — making it vital in nearly every industry's battle to win business.

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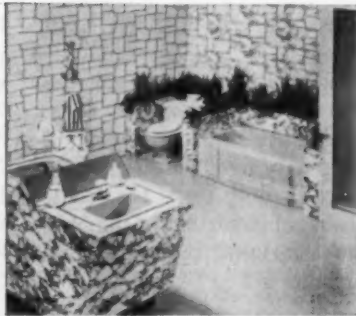
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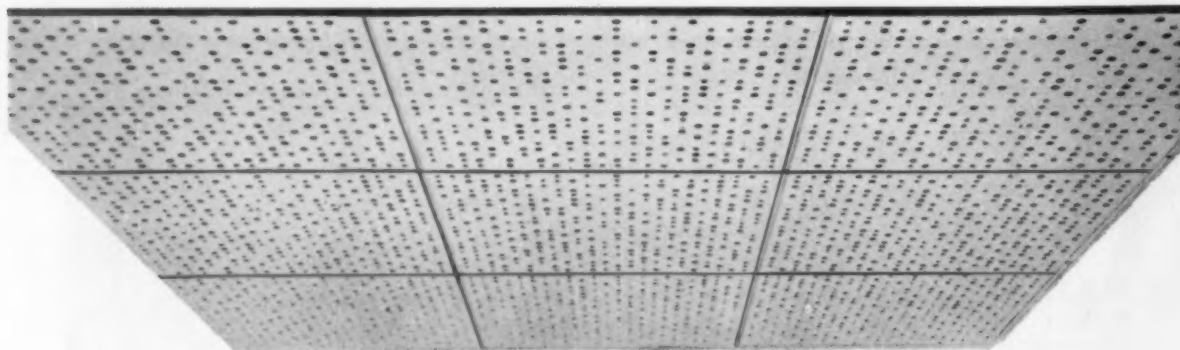
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JOHNS-MANVILLE

Unions Fret Over Unemployment

● The rise in joblessness hits unions two ways—in membership and in strength at the bargaining table.

● And economists are now predicting more than 4-million unemployed in 1958—twice the October total.

● The trend is the same almost everywhere you look, but in labor the Machinists are probably hurting the most.

Labor leaders are watching the steady rise in unemployment across the country with growing concern. Besides the retarding effect it is having on union membership, the jobless trend is sure to be felt at the 1958 bargaining table.

Economists predict the level of unemployment at 4-million to 5-million during 1958. The latter guess would double the October total of 2.5-million out of work.

This is not, in itself, a critical picture. But for the unions, now preparing contract demands for next year's round of bargaining, the signs are a bit ominous. Advancing unemployment may provide more arguments for such key share-the-work demands as the shorter work week—now being pressed by the United Auto Workers, International Union of Electrical Workers, and other unions—but it also cuts into the bargaining strength of unions.

Members are less anxious, or likely, to strike when jobless are outside, looking in. And, conversely, employers are likely to bargain harder and to be less wary of a strike if production levels are down.

• **Minus Signs**—The unemployment figures, in themselves, raise some qualms among the experts. Their main concern is what's going to stop the trend before it reaches serious proportions. Certainly, there's nothing on the horizon that would reverse factors causing the decline in jobholders:

- Manufacturing employment has fallen off each month during 1957. The latest count, for October, puts factory payrolls 470,000 below a year ago, and further layoffs are anticipated.

- Slowdowns in construction, in part seasonal, will add to unemployment through the winter months, and a spring pickup isn't expected to offset other industries' drag.

- The planned reduction in capital spending in industry, combined with shifts in federal spending, is expected to add to the growing total of jobless in 1958.

- The increase in the jobless in October came in virtually all industries

and all states, indicating that the trend is widespread and could hardly be stopped by a sudden spurt in a key industry.

- **Latest Figures**—Last week, the newest employment-unemployment report—a joint survey by the U. S. Commerce and Labor Depts.—showed October looking very like September. Yet it only added fuel to the predictions for 1958.

The flaw in the picture is that October is a key employment month. Instead of showing its usual seasonal rise, non-farm employment dipped by 50,000; manufacturing fell by 117,000 while non-manufacturing, such as retail trade, showed some pre-Christmas pickup.

In the over-all totals civilian employment advanced by 300,000 to 66-million because of a recovery in farm work after a poor September. Unemployment failed to show its usual drop, leveling off at 2.5-million or 4.6% of the work force on a seasonally-adjusted basis, 3.7% otherwise.

None of these figures is considered critical at this time. But, combined with a surprising 1.2-hour drop in the factory work week to 39.5 hours—explained in part by working time lost from widespread influenza—the signs are ominous. In a production downturn, employers will frequently cut work schedules rather than lay off employees. Both happened in October.

- **Uniform Picture**—Almost regardless of industry and area, the story is the same.

Job cuts came in heavy goods industries: Aircraft employment continued to fall off because of defense order cutbacks; steelworks, foundries, and metalworking and electrical and general industrial machinery showed job declines. In softgoods, textiles and apparel went against the season to show a drop in employment, while food processing followed its seasonal trend by a large fall-off in jobholders. Lumber, facing construction slowdowns, continued its steady drop.

Geographically, unemployment advanced in 43 states. Labor Dept. re-

ports of state insured unemployment payments showed widespread increases in new claims for state UC benefits. Pennsylvania led with 4,200 initial claims, followed by New York, Missouri, and California. The reasons varied.

In California and Washington, the affected industries were aircraft and lumber; in New York, apparel and textiles; in Missouri, shoe manufacturing, and in Tennessee, rubber and fabricated metals.

- **Labor's View**—Union economists, keeping track of job losses among AFL-CIO affiliated unions, take a dimmer view of the employment picture than their government counterparts. With 1958 bargaining just ahead, they argue that a big reason for the advancing unemployment count is that workers' wages aren't moving ahead of the cost of living. This cuts into their buying power and causes a lessening demand for goods, which in turn causes factory layoffs, the unions contend.

While a number of unions, such as the Electrical Workers and the Auto Workers, have been hit by the decline, probably the most seriously affected is the International Assn. of Machinists, the biggest union in aircraft and missile production.

A recent survey by The Machinist, IAM's weekly newspaper, discloses that members are feeling a pinch now and are expecting a much harder one. The paper polled its locals in aircraft and missile centers to find out what was going on. Here are some typical reports:

- **California**—Lockheed Aircraft Corp., California Div., has laid off about 7,500, and 5,000 more may go in the next few months. Douglas Aircraft Corp., El Segundo Div., shows steadily decreasing employment, with layoffs over and above an attrition rate of about 150 per week; more than 1,000 have been laid off.

- **Washington**—Boeing employment in the Seattle area faces a cut of at least 8,000 by the end of the year.

- **Kansas**—Boeing's Wichita Div. has released approximately 1,700 to date. The company believes this will be the extent of the current cutback.

- **New York**—Republic Aviation Corp. has laid off 6,300 since March. Another 8,400 have been laid off in other defense industries on Long Island.

These are estimates of local union officials connected directly with defense work. They make no allowance for rehiring into other industries. But the size of the trend has brought some counterattack moves by IAM. For instance, local Machinists representatives

Rockwell Report



by W. F. ROCKWELL, JR.

President

Rockwell Manufacturing Company

SINCE THE RECENT ANNOUNCEMENT OF OUR purchase of a company in West Germany, our people are being asked why, exactly, do we want manufacturing facilities in Europe at this time.

The answer grows out of what has been called the most encouraging European development in generations—the formation of the European Common Market and the related Free Trade Area. The objective of these two organizations is, of course, to abolish over the next 12 to 17 years artificial barriers to the free movement of capital, labor, and goods between the 12 cooperating nations. They express the will of millions of Europeans to work together for prosperity, rather than to battle each other in the name of nationalism.

The practical result will be a market of about 240 million people—the largest concentrated mass market in the free world—surrounded by a protective tariff wall. This wall, plus wage differentials, may make it very difficult to ship into the area. Our purchase of Ilo-Werke, a leading German manufacturer of diesel and gasoline engines, with plants at Pinneberg (near Hamburg) and at Munich, provides us with modern, expandable, manufacturing facilities inside this huge market.

This makes possible several specific advantages. Ilo-Werke is a healthy, going business with good markets for its own products. It has up-to-date heat treating, machining and other facilities required for manufacture of our own meter, valve and power tool products, plus experienced management and established sources of supply. And it gives us an engineering and development staff of 260 people.

But most important, Ilo-Werke gives us in Europe a nucleus of research strength and manufacturing know-how around which we can build to serve the tremendous mass market developing there. It is part of our overall planning to take full advantage of our world trade potential in order to safeguard and enhance the interests of our shareholders and employees.

* * *

This month national publications are carrying announcement ads for our completely new, redesigned line of Delta Homecraft Power Tools, featuring styling by Raymond Loewy. As a fitting setting for the ultra-modern tools, our Power Tool Division has designed three ingenious home workshops to fit the space limitations of almost any home. Ads offer free plans to make it easy for home craftsmen to build the shop they like in their own home. With Delta Tools, we hope.

* * *

The new petroleum products pipeline from Le Havre to Paris, France, is equipped both with Rockwell-Nordstrom valves and Rockwell Rotocycle meters. Our Rotocycle meter, incidentally, is the only bulk liquid meter fully approved for use in France.

* * *

A seventy-four year old gentleman from the Ozark Mountains wrote us an eloquent letter making an unusual request. He asked for a list of industrial organizations offering college scholarships so that he, in turn, could guide and help boys in his mountain community who wanted but couldn't afford a higher education. We have no such list at the moment, but hope to send him one soon. Our Market Research Department has taken it on as an official work project.

One of a series of informal reports on the operations and growth of the

ROCKWELL MANUFACTURING COMPANY

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for its customers, suppliers, employees, stockholders and other friends



from Long Island recently took their plight to the Air Force, Defense Dept., and Congressional leaders in Washington, in hopes of getting an estimated 14,000 laid-off defense workers back on the job.

• **Business View**—Businessmen show less pessimism about employment, at least in the immediate future. An employer survey, by the Bureau of Labor Statistics, shows they expect payrolls to increase slightly to the middle of this month. The survey was made among employers in 149 major labor market areas and provides the basis for the bi-monthly report on hiring trends.

The service and trade industries, of course, anticipate a pre-Christmas hiring rush. In aircraft, employers predict, the layoffs will be "relatively moderate." Some boosts to the November employment picture are anticipated by auto manufacturers as new car production really gets rolling. This, in turn, is expected to boost hiring in steel, fabricated metals, and electrical machinery.

Wage Claim Holds Up Distribution of Assets

The Darlington (S. C.) Mfg. Co., one of a chain of mill units operated by Deering, Milliken & Co., last week was restrained from distributing assets of a closed mill pending a decision on back-pay claims filed in behalf of its employees by the Textile Workers Union of America.

The restraining order, sought by Jerome D. Fenton, general counsel of the National Labor Relations Board, is a "first" for NLRB.

TWUA won bargaining rights at the Darlington Mfg. Co. mill in October, 1956. Shortly afterward, the company shut down the mill. The union protested to NLRB that the closing order was an unfair labor practice.

An NLRB trial examiner ruled that the shutdown was discriminatory, in violation of the Taft-Hartley Act. But, he noted, he could see no remedy because the mill was closed and in liquidation. TWUA moved immediately to obtain a back-pay award to Darlington employees, and to make Deering, Milliken & Co. liable. NLRB took the claim under advisement, but turned down the petition to link Deering, Milliken with the Darlington action.

When the company began distributing the Darlington assets, TWUA appealed to the NLRB general counsel against "this open . . . intention to frustrate the Taft-Hartley Act's remedial powers." The union's initial pleas were turned down. But, after Fenton's appointment as NLRB general counsel this year, new union efforts to block the further distribution of Darlington assets were successful. **END**

frozen lightning

New handwriting on the sky challenges nation's Specialty Steel producers. Upper atmosphere trails from V-2 rockets were called "frozen lightning" by the Germans. Soon our own skies will be criss-crossed with frozen lightning from Mach 4-5 aircraft now under development. At 3,000 mph, thermal problems are multiplied by two kinds of heating — aerodynamic outside and engine operation inside. Engine builders, airframe and fastener manufacturers and forging shops are seeking the answers from Carpenter. For on this frontier, everything that Carpenter stands for comes into play. Consistent quality and uniformity . . . improved forgeability . . . better finishes . . . easier fabrication and advanced research. Little wonder that all America looks with keen interest at what Carpenter is doing today . . . for tomorrow. The Carpenter Steel Company, 140 W. Bern St., Reading, Pa.

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Specialty tool, alloy and stainless steels for critical applications



Everybody has ideas on how to guarantee clean unionism by legislation



Philip Talbott,
President
U. S. Chamber
of Commerce

Mandatory disclosure of union welfare funds but not of employer funds. A ban on secondary boycotts and, especially, "hot cargo" contract clauses.



James Mitchell
Labor Secy.

Election of union officers by secret ballot. Federal disclosure of all welfare funds, not just those of unions, with penalties for filing false financial statements. Restrictions on organizational picketing.



Sen.
Alexander Smith
(R. N. J.)

Amendment of Taft-Hartley to permit construction unions to be certified as sole bargaining agents without prior elections.



Sen.
Paul Douglas
(D. Ill.)

Mandatory registration, reporting, and disclosure of all welfare plans, to be handled by the Securities & Exchange Commission.



Ernest G. Swigart,
President,
National Assn.
of Manufacturers

Mandatory disclosure of union welfare funds but not of employer funds. A ban on the union shop and other forms of compulsory unionism. Application of antitrust laws to unions. A curb on industrywide bargaining. A ban on union contributions to political candidates.



Sen.
William Knowland
(R. Calif.)

Legal guarantees giving union members the right to elect or recall officers by secret ballot and a voice on union policy matters. State right-to-work laws. A statute to bar union leaders from using dues money for political purposes or personal reasons, and limiting use to bettering wages and working conditions.



Sen.
Irving Ives
(R. N. Y.)

Welfare fund disclosure handled by the Labor Dept. Authorization for Presidential seizure of any company that is involved in a national emergency dispute.



Sen.
James E. Murray
(D. Mont.)

An amendment to Taft-Hartley to permit employees in printing and publishing industry to make closed shop agreements.



George Meany
President,
AFL-CIO

Mandatory registration, reporting, and disclosure of all welfare plans. Complete overhaul of the Taft-Hartley Act, among other things to ease secondary boycott bans, give economic strikers the right to vote in elections held during a strike, and repeal state control over the union shop.

Question Before Congress: What

There's a saying going around in Washington that every congressman has a patented remedy of his own for curing organized labor of racketeering and corruption. And it is a fact that Congress will face scores of labor bills

when it reconvenes in January—all drafted to complete the cleanup of the labor movement started by the unions themselves, through AFL-CIO.

The "remedies" vary from government controls over unions to fewer re-

strictions than now—even, in one instance, to repeal of the Taft-Hartley Act and a return to the old Wagner Act.

• **Three Main Views**—Essentially, the proposals fall into three groups:



Sen.
Carl Curtis
(R. Neb.)

A ban on economic pressure on employers to force employees to join unions, on all secondary boycotts, and on the transportation of "hoodlums" across state lines in labor disputes. Also, the application of anti-trust laws to unions.



Sen.
Barry Goldwater
(R. Ariz.)

Revision of federal laws to allow states to regulate strikes, picketing, boycotts, or lockouts. Also, a ban on the use of union funds for political purposes.



Vice-Pres.
Richard Nixon

Election of officers by secret ballot. Tighter restrictions on secondary boycotts.



Sen.
John McClellan
(D. Ark.)

Provisions for the forfeiture of tax-exempt status by any union found to be corrupt.



Rep.
P. Frelinghuysen
(R. N. J.)

Establishment of a 12-member federal commission on labor racketeering to investigate and determine what laws are necessary, giving the commission power to conduct hearings and subpoena witnesses.



Sen.
Joseph Clark
(D. Pa.)

Amendment of Taft-Hartley to remove the present bar against economic strikers voting in representation elections; the new provision would bar an NLRB election during a representation strike.



Rep.
James Roosevelt
(D. Calif.)

A ban on the prohibition of the union shop in any state or territory.



Sen.
Pat McNamara
(D. Mich.)

An amendment to Taft-Hartley repealing Sec. 14(B), thereby taking away the right of states to bar union shop contracts. Also, an amendment to permit employees to use the secondary boycott on construction jobs.



Richard Gray
President,
AFL-CIO Building Trades

Taft-Hartley amendments to permit pre-hiring contracts in construction, repeal the right of states to control union shop contracts, and ease secondary boycott bans on construction projects.



Rep.
Earl Chudoff
(D. Pa.)

Repeal the entire Taft-Hartley Act and reestablish the Wagner Act, generally more favorable to unions.

to Do About All These Ideas

• Business organizations and such McClellan committee members as Sens. Barry Goldwater (R-Ariz.) and Carl Curtis (R-Neb.) want strict federal curbs on unions and their practices, both in their dealings with busi-

nessmen and the government and with their own members.

• AFL-CIO and "friendly" congressmen would limit federal action to checks on welfare funds and would ease some curbs on unions.

• The Eisenhower Administration's program, underscored last week by Secy. of Labor James P. Mitchell, proposes some limited curbs on organized labor—generally stronger than the ones the White House has suggested

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in other years but not so tough as the proposals of the conservative wing of GOP.

Additionally, the Administration suggests legislation to curb abuses in the labor-management field—including criminal penalties for anyone using "union-busting" practices such as those revealed in McClellan committee hearings. The Administration also favors some concessions to labor on issues raised by unions.

• **Outcome**—Even with the barrage of proposed legislation, there's not likely to be any record labor lawmaking. There's even a good chance that no legislation will pass Congress. Here's why:

• There's no bipartisan support for any particular piece of legislation.

• 1958 is a Congressional election year. Congress will want to adjourn early, and congressmen from industrial states will put on pressure to avoid any labor legislation before the voting.

• Sen. John McClellan's committee investigating labor racketeering can only make recommendations on labor legislation through the Senate Labor Committee. While the McClellan committee is expected to recommend some stringent curbs on labor, they're not likely to get past the more liberal lineup in the Labor Committee. Also, hearings must be held on all proposals, and time is likely to run short in a rush toward adjournment of Congress.

• **On the Other Hand**—You can never be certain about legislation that's going through Congress. The situation could be changed overnight. There are two developing factors that make this at least an outside possibility.

• The racket investigations in Congress may uncover even more dirt about unions and management—enough to alter the political timetable.

• Bargaining between Walter Reuther's United Auto Workers and the major auto producers will begin in the spring. Reuther has already indicated that his demands will be tough. Should a long strike result, the legislators' mood for restrictive legislation would be enhanced.

• **Trend of Bills**—All the emphasis so far is on tying unions up with more federal controls. The possibility of liberal amendments to Taft-Hartley alone just doesn't fit the situation. The AFL-CIO would be more than happy to keep the status quo, Taft-Hartley and all.

There's already some legislation in the mill for Congress when it resumes in January. Some 22 labor bills are awaiting action, mostly for committee hearings. But one proposed labor law is already halfway through Congress.

Bills to provide regulation and disclosure of health, welfare, and pension funds will be voted out of the Senate



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Food wrappers of Patapar Vegetable Parchment are designed for smooth operation on all types of packaging equipment. Whether used in sheets or rolls, Patapar's easy performance assures maximum output and a neat, tight wrap.

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PATERSON PARCHMENT PAPER COMPANY

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Labor Committee almost in its first order of business. The Barden Committee in the House started hearings on the measure last session.

The Eisenhower Administration and the AFL-CIO are in agreement on the bills' proposals, though they disagree over which federal agency should administer the law. However, business organizations oppose including management-sponsored funds in the bill, and this may prevent its passage.

• **Lot of Talk**—With Congress' disposition to lengthy talk, you can anticipate almost interminable hearings when the mass of labor legislation comes before the Congressional labor committees. For the first time, the subject of union democratic procedures—such as supervised voting and guaranteed rank-and-file rights—will be on the agenda. This will open the way to no end of suggestions.

In the discussions now going on among labor, industry, and Administration teams there are other ideas—such as a law applying only to the trucking industry. Railroad companies and unions have their own Railway Labor Act; presumably, the thinking goes, the Teamsters could be checked by federal rules directed only at them without restricting other labor groups.

U.S. Court Bills UMW \$400,000 for 1948 Strike

A federal court in Tennessee has awarded an employer, the Meadow Creek Coal Co., \$400,000 damages against the United Mine Workers as a result of an organizing strike in 1948. The company had asked for a million dollars in compensatory and punitive damages.

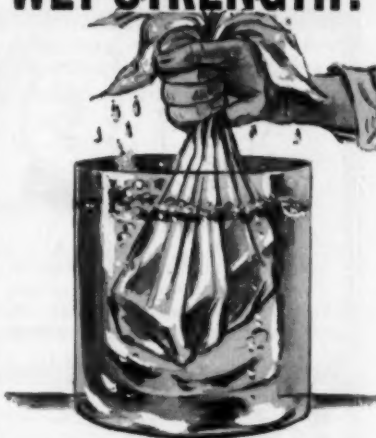
The action against UMW by Meadow Creek was one of a number that resulted from union organizing efforts in Putnam County, Tenn., and other coal mining fields nearby. The total damages sought run high in the millions.

In his decision, Federal Judge William E. Miller noted that in December, 1947, UMW "having failed to recruit the majority of [Meadow Creek's] employees, determined to close down the . . . mine by force." The union recruited a motorcade of about 200 miners from another coal field, "some of whom were armed with guns," the judge said.

"Fear of bodily harm" kept miners and customers away from the mine "until a contract was signed by the management . . . in July, 1948," the judge said in awarding the damages against UMW for "closing the plaintiff's mine and interfering with its business."

UMW plans to appeal. **END**

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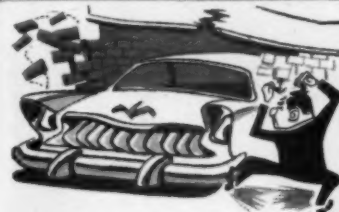
The Story of Mounting Fleet Costs And How to Cut Them!



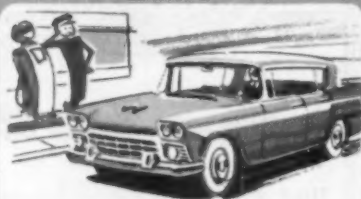
Meet George Armbruster and Eric Flintrock, President and Comptroller of a company that operates a fleet of salesmen's cars. You know what their conversation is about.



"Oicks!" said Eric. "Our fleet costs are skyrocketing. The cars are gas guzzlers. And our salesmen can't fit them into parking spaces near customers' offices."



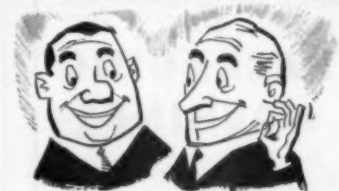
"But here's the last straw, Mr. Armbruster. We're going to have to rebuild the company garage to house these monsters. They just won't fit in now."



"Cheer up, Eric," replied George. "I've seen the light. We're switching our entire fleet to Ramblers. They spurn gas pumps like they had the plague."



"You're right, Boss," Eric chimed in. "What's more, Ramblers cost less to buy, less to operate and have top resale value. The used car guide books prove that."



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While other cars grow bigger, bulkier and more expensive to operate, Rambler for 1958 continues to be the most economical automobile to buy and operate, maintain and trade.

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In Labor

Machinists and Electrical Workers

Bury Hatchet in New United Front

Ground rules for cooperation and competition between the International Assn. of Machinists and the International Union of Electrical Workers are set down in a new "friendship" agreement signed last week by the two unions.

Inter-union relations will be handled through a joint committee made up of three men named by each union "to strengthen their respective bargaining position and to further their efforts to advance the interests of the workers they represent." The IAM-IUE committee will develop methods, guides, and plans for the exchange of bargaining information, settlement of jurisdictional disputes, and joint organizing. Each union will designate a representative who will have full authority to settle any complaint arising under the agreement.

The peace pact is expected to smooth over some differences that have occurred as a result of clashes in organizing campaigns where both unions were on the ballot. In future contests, each side pledges to refrain from name-calling and from impugning or attacking the motives or character of the other.

UAW Leaders Call for Rival Union

If AFL-CIO Expels the Teamsters

The two top spokesmen of the United Auto Workers this week indicated that they were in favor of the AFL-CIO fielding a rival union to the Teamsters if the latter is expelled from the labor federation.

In San Francisco, UAW Pres. Walter Reuther told a press conference that if the Teamsters were ousted "the AFL-CIO has an overriding obligation to liberate the rank-and-file Teamsters from corrupt leadership. Something must be done," said Reuther, "to form the basis of another clean teamsters' union where the rank-and-file can go."

In Milwaukee, UAW Secy.-Treas. Emil Mazey had this to say in a TV interview: "You'll recall that in the CIO in 1949 we expelled nine unions because they were dominated by the Communist Party. We formed rival unions . . . You've got the same basic problem now."

Strike Idleness Hits Low in 1957

But Takes an Upturn in September

Strike activity dropped to a new post-World War II low during the first nine months of 1957, the number of workers idle and man-days of idleness, according to preliminary estimates of the U.S. Labor Dept.'s Bureau of Labor Statistics. The number of work stop-

pages, say the government statisticians, was also smaller this year than in any comparable post-war year except 1954.

The 3,025 work stoppages that began from January through September of 1957 idled about 1.25-million. These stoppages, together with those continuing from 1956, resulted in approximately 13.3-million man-days of idleness—about 16/100 of 1% of all time worked.

In September, according to the BLS, slightly fewer strikes occurred than in August. But the number of workers involved and total idleness rose.

Strike Comes Closer on Santa Fe

As Mediation Board Again Bows Out

The National (Railway) Mediation Board last week refused to take jurisdiction again in the dispute over a union shop on the strike-threatened Santa Fe Ry. (BW—Oct. 12 '57, p163). The 15 non-operating unions are now free to order a strike and set a strike date. Earlier, the officers of the non-operating unions at a meeting in Chicago had announced that in a poll of members and non-members "impressive majorities" voted to authorize strike action.

The Santa Fe had asked the Railway Mediation Board to reconsider its decision of a month ago to withdraw from the case. The three-man board had been unable to induce the railroad and unions to settle the union shop issue—a contentious issue between them over the past several years, since a Presidential board recommended a union shop on the railroad. The Santa Fe objected because, it protested, union dues are not limited to basic trade union uses but are "used for the support of [political candidates] or for the advancement of political ideologies."

UAW Cleared of Charges It Failed

To Let GOP Speak on Programs

A Detroit court jury last week freed the United Auto Workers of charges that the union violated the Corrupt Practices Act by sponsoring a series of radio and television programs in the 1954 Michigan Congressional elections.

The indictment charged the union with making a political expenditure out of union funds, inasmuch as candidates of only one party (the Democrats) were represented in the series. UAW argued that members of the other party had declined invitations to participate and that the series was "educational" rather than "political" in nature.

When the indictment was originally returned in 1955, a federal judge threw it out on the grounds it violated the First Amendment. The U.S. Supreme Court overruled the lower court and ordered the case tried on its merits.

Republican leaders—who claim UAW invitations were to "loaded" programs—complain that the decision opens the gates to union expenditures in political campaigns.



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a merger of THE DIAMOND MATCH COMPANY and THE GARDNER BOARD AND CARTON CO.

This merger, completed on October 31, 1957, comes as a natural step in the diversification of both companies, with distinct advantages to each. Long known as a leading manufacturer of matches, Diamond's production, today, includes lumber and lumber products, many woodenware items, and a wide range of molded pulp and paperboard products now accounting for the largest percentage of its operations. The company has an unbroken record of quarterly dividend payments since its organization 76 years ago... has forest reserves of over 376,000 acres... and reported sales in 1956 of \$134 million.

The 57-year-old Gardner Company is a producer of paperboard and cartons for more than 1600 important manufacturers and wholesale and retail merchants. Sales in 1956 were \$36 million. For many years much of the paperboard used to make and package Diamond matches has been supplied by Gardner. Both companies depend on the same source of raw material—the forests. The products of both companies, although entirely different, complement each other: Diamond in molded pulp; Gardner in paperboard.

Gardner's research has been responsible for many pioneering developments; Diamond's research has made steady progress toward full commercial utilization of wood fibers. The new corporation's able management, specialized technicians and sales personnel will contribute materially to its growth.

Important facts about the new **DIAMOND GARDNER CORPORATION**

Combined 1956 sales \$170 million.

Combined total assets \$141 million.

Combined working capital \$52 million.

A diversified business—approximately 47% of combined production in molded pulp and paperboard, 23% in retail yards and stores, 17% in matches and woodenware, 13% in lumber production and mill sales.

11,000 employees in 27 manufacturing plants, 10 sawmills, 88 retail stores and lumber yards.

A current \$32 million expansion and modernization program.

A dynamic growth potential in diversified forest products.

SOME DIAMOND GARDNER PRODUCTS:



"Foodtainers"—molded pulp containers for prepackaging meat and produce for America's 27,000 self-service markets.



Custom cartons—multi-colored packages for over 1600 customers in soap, tobacco, food, beverage, pharmaceutical and other industries.



Egg cartons—molded pulp and paperboard retail containers for egg packers, large and small.



Retail folding boxes.



Corrugated shipping containers.



Disposable paper plates, pie plates and cake circles.



Matches—all types of paper and wooden matches.



Lumber—wholesale and retail.



"Neet-Heet"—self-starting charcoal briquet packages.



Woodenware—toothpicks, clothespins, ice cream confection sticks, etc.



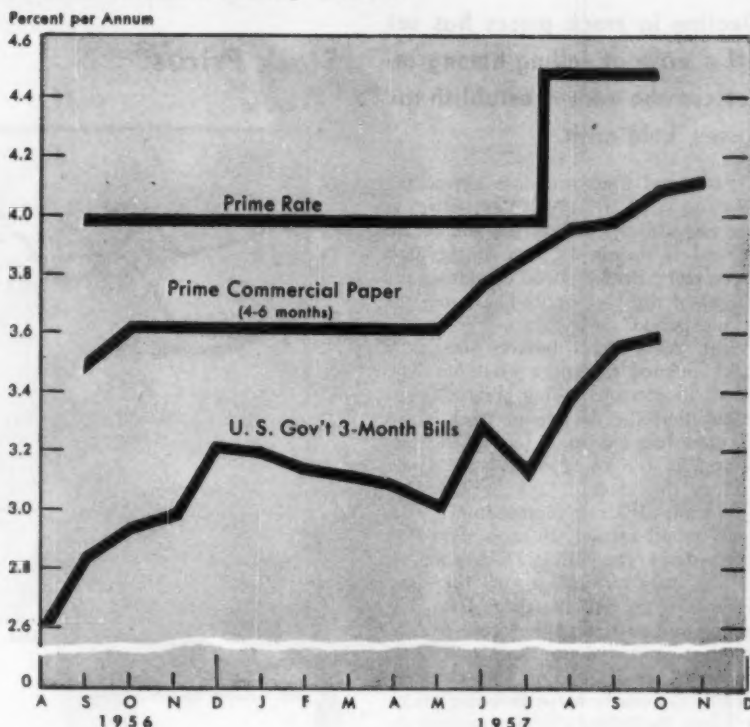
Paperboard—53% of 150,000 tons annual capacity is used for cartons and folding boxes, the remainder sold as paperboard.



Containers for milk and dairy products, produced by an affiliate.

THE MARKETS

Short-Term Money Rates



Are They Past the Peak?

With demand for credit far below normal, short-term rates seem headed downhill—but effects of the ease will be felt slowly elsewhere.

A number of times in the past 12 months, rumors of a change in the Federal Reserve's restrictive credit policy have swept through the money market. Each time, though, the rumors turned out to be wrong, and the cost of borrowing climbed to new peaks.

This week, there was renewed talk of a turn to easier money. Both lenders and borrowers, who had been burned before, were a bit skeptical that any big change was in the works. But the belief was growing that even if the Fed made no major move, short-term money rates at least were headed downward.

The fact is that the nation's monetary managers have already shifted from a policy of intensifying restraint to a more passive role (BW—Oct. 12 '57, p46). Fed officials continued to press a restrictive policy as long as demand for credit remained strong; when demand

showed signs of slackening, the Fed began easing up.

• **Demand and Rates**—Now it is clear that demand for credit, particularly for short-term funds, is far below the normal seasonal levels. The nation's banks reported a big decline in loans during October, a month when loans normally stage a big increase. Even more significantly, the banks experienced almost a complete stoppage in applications for new lines of credit. For the first time in over a year, a number of banks are currently looking for potential borrowers rather than turning them away. They are not yet cutting their interest rates, but the building up of lendable funds is a prerequisite to a change in rates.

Other more sensitive short-term interest rates are reflecting the sharp decline in demand. Bankers' acceptances rates were reduced last week by $\frac{1}{8}$ of 1%, the third such decrease since August. And the 91-day Treasury bill rate, which is a key indicator of short-term money market conditions, this week dropped to 3.47%, down from 3.57% in the previous week and well below the 24-year high of 3.66% reached in mid-October.

This change in short-term interest rates has not yet affected the commercial paper rate, which is a little less sensitive than the bill rate but considerably less sluggish than the prime rate set by the nation's banks. The expectation is that this rate, too, will soon show a decline.

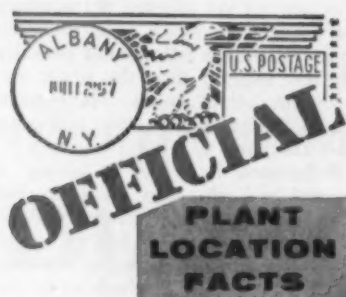
• **Reflections**—But the slackening in demand and the slow shift in Fed policy will take more time to make themselves felt in other borrowing sectors. For example, demand in the long-term capital market is scheduled to run fairly heavy during the next few weeks, and this will tend to keep the cost of long-term borrowing close to current highs. But the slowing down of capital spending scheduled for next year (BW—Nov. 9 '57, p23) will probably bring about a downturn in borrowing via the capital market. This in turn will bring about a lowering of interest costs.

The tax-exempt market is actually a little easier than it was earlier. This week Kentucky, which has a 3% ceiling on its borrowing, sold \$35-million in highway bonds at a cost of 2.96%. It is doubtful that Kentucky could have come under its ceiling earlier this fall. A number of other states and municipalities with similar provisions will also be coming back into the market if there is any slide. This will tend to keep rates fairly stable.

Tight money has been blamed for the decline in the stock market, and there is little doubt that the squeeze on both business and individual investors has been a factor in the slide. But the slight easing seen to date has had no effect on the market. And even if the Fed took more aggressive action toward ease it's questionable whether this would serve as a stimulus to stock prices. That's because easier money would not be a sign of renewed prosperity but a confirmation of a decline.

• **Treasury's Gain**—The U.S. Treasury will be able to take advantage of the change in the tone of the money market, particularly in the short-term sector. It plans to refund almost \$10-billion, the bulk of which is held by the Federal Reserve. In addition, it will be raising some new cash to carry it through the end of the year. Money market men feel that the Treasury will have little trouble conducting a successful operation, although its coming into the market for so much money will tend to hold up any rapid move toward easier rates.

• **Downhill?**—But despite the Treasury's operation, the change in short-term money rates is likely to become more pronounced. The slackening in demand for bank credit, and the increase in the supply of short-term corporate funds, suggest that the peak in short-term interest rates has been reached and the next move is downhill. **END**



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Edward T. Dickinson
EDWARD T. DICKINSON
Commissioner of Commerce

Tax Selling Stymies Rally

Decline in stock prices has set off a wave of selling among investors who want to establish tax losses, hold cash.

Just what influence does tax selling have on stock averages? Very little, as the chart shows, when the market in general is strong. In two of the past three years, stocks moved up during the height of the October-to-December tax selling period.

But Wall Street brokers this week were inclined to ignore what has happened in previous selling periods. They report that the decline in stock prices to date has led to a big increase in selling for tax losses. This wave of tax selling, they feel, is apt to keep any rally from gathering momentum.

In a bull market, there is very little out-and-out tax selling. Instead, investors take advantage of the laws permitting tax switches (page 169). The selling and switching that goes on in a buoyant market doesn't act as a brake on stock prices. On the contrary, switching activity helps to boost prices.

• **Little Switching**—In the present decline, there is a good deal of selling and very little switching. From all indications, investors are not only selling stocks that have declined in value in order to establish tax losses. They are also dumping stocks on which they show a profit, partly because they fear further price drops, partly because they prefer to hold cash.

Most brokers report that the money accruing from tax sales is not being reinvested immediately. "That's a big change from what we have been used to," says one broker.

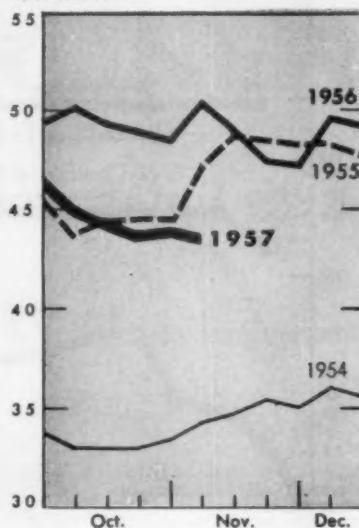
• **Secondary**—Tax selling wasn't a major cause of the decline that started in mid-July, but it has helped depress the market since. That's because tax selling this year started earlier than usual. Some brokerage houses encouraged tax sales in September and some institutional investors began heavy tax selling even earlier.

Institutional investors normally engage in sell-switch operations in both stocks and bonds. Because they waited too long in past years, many institutions felt that they made some bad swaps. So this year, when the market as a whole turned sour, they began selling. They have done some switching, but many are holding back in the hope of lower prices before the year is out.

Tax selling does not hit bond prices as much as stock prices. Institutional investors always do a lot of selling and switching of bonds, and this year is no

Stock Prices

1941-43=10



Data: Standard & Poor's
425 Industrial Stock Price Index.

exception. In fact, bond prices have been somewhat firmer due to shifts from equities into debt issues.

• **Prospects**—Some market analysts believe that a lot of individual tax selling is still to come, and that those who have already switched will not be reinvesting before the end of the year. One analyst points out, "This year's decline gives investors an incentive to sell. There is little chance that they will miss a big rise, so there is no particular advantage in switching. They can carry losses forward to use against future capital gains."

While a decline encourages tax selling rather than switching it's doubtful that tax selling, by itself, ever causes a decline. Its chief impact is not on the market as a whole but on individual issues whose performance makes them vulnerable as tax loss candidates.

Thus, tax selling has added to the losses suffered by some issues. Railroads, oils, and metals, which have been among the sectors with the biggest declines, have felt the impact.

• **Impediment**—More important, tax selling can impede a rally. In 1937, for example, the market was hit by heavy waves of tax selling every time a rally got going. So far this year, the attempts to arrest the decline have been short-lived. The big one-day rally that got under way on Oct. 23 petered out largely because a lot of investors took advantage of the momentary rise to register losses or nail down profits. **END**

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PERSONAL BUSINESS

BUSINESS WEEK

NOV. 16, 1957



Don't let the recent talk about the "new look" of your personal income tax return throw you. Actually, there's no new Internal Revenue Service ruling involved. What's happened is that the front page of the new 1040 tax form now carries a separate line—6(a)—calling for the total figure spent on "travel, reimbursed expenses, etc." (BW—Oct.12'57,p170).

The idea is this: You're expected to show on line 5 your salary and other compensation received from your employer (including your expense account income), then below this on the new line you deduct the total amount you spent on your employer's account. **Actually, if you have been on an expense account, you should have been doing this each year.** However, since there was no separate item on the old form 1040, many taxpayers found it easy to overlook.

As in the past, you're also supposed to attach a statement to your return showing just where the expense money went. However, although IRS won't say so officially, the word has gone out in clear, if unofficial, terms that the average taxpayer needn't keep or supply any more detailed expense records than he has before.

With the addition of the new line, the IRS hopes to flag quickly returns of taxpayers who (1) receive sizable amounts of expense money in relation to income, and (2) get a flat allowance for general business expense. The IRS is expected to run a fine-tooth comb over expense accounts with a lot of big items that may be personal spending, not business—including such things as hunting trips, attending out-of-town sports events, and maintaining yachts and cabin cruisers.

Yearend tax-selling may concern you more this season than in many years past—what with a bearish market to contend with since last July. Your crucial decision, of course, is which gains or losses to take before Dec. 31 so as to come up with the greatest possible tax saving next Apr. 15.

Taxwise, you have a dual objective: (1) to get the long-term capital gains rate (maximum 25%) applied to profits from your sales of securities, and (2) to use any losses on sales to offset ordinary income (up to \$1,000). Here's a three-step approach to this problem:

- List your 1957 sales of securities—short-term (held six months or less), and long-term (held more than six months). Tabulate gains and losses.
- List capital losses of earlier years that can be applied against 1957 gains.
- Review your current portfolio and list all paper gains and losses to date. Decide whether to take any new losses now (by making sales) to offset gains or to improve your future tax position.

Here are some ideas that may enter into your planning, covering some typical yearend situations:

Where you have only long-term gains. Probably you should realize them this year to take advantage of the capital gains rate. Only 50% of the profit from long-term sales is subject to tax at the ordinary rate. So if your tax bracket is under 50%, the tax on these gains ranges from 10% (for a person in the 20% bracket) to 23½% (if you're in the 47% bracket). However if you are in a 50%-or-over bracket, your tax on long-term gains is never more than 25%.

Where you have short-term gains. Normally you'd hold your securities until the six-month period passed—to gain a long-term position. If you do sell, the gains are taxable at your normal income rate.

PERSONAL BUSINESS (Continued)

BUSINESS WEEK

NOV. 16, 1957

Where you have both long-term gains, and losses that are long-term, short-term, or both. You may want to realize your gains this year—to get the lower capital gains rate. You would then reserve your losses to use next year—for example, to offset expected short-term gains. If you realize both gains and losses this year, the losses—long- and short-term—will, of course, offset your gains.

If your losses are small (up to \$1,000) you'll probably want to take them now—and thus offset ordinary income, dollar for dollar. And, remember, you can arrange your Declaration of Estimated Tax so that the tax on any gains you take early next year won't be due until April, 1959.

Where you have both long-term and short-term gains and both types of loss, too. Standard procedure would be to realize long-term gains one year, and short-term gains and both long- and short-term losses in another year. Thus you get the lower tax rate on your long-term gains—and in the other year, your losses offset the short-term gains (subject to ordinary rates).

Where you have short-term gains and either short-term or long-term losses. The losses can be used to offset these gains, and any excess loss used to offset ordinary income up to \$1,000. If there's a loss remainder, it can be carried over and applied any time during the next five years.

This carryover privilege can give you a substantial deferred benefit if you have large losses on paper. You can realize just enough losses to offset your short-term gains and ordinary income up to \$1,000—and thus gain the maximum current tax benefit. At the same time, you can hold your position in the market in the hope for a favorable turn.

Warning: The "wash sale rule" has tripped up a lot of people lately. The rule says you can't deduct a loss on a securities sale if you buy stock in the same corporation within 30 days. A point often overlooked is that the danger period covers 61 days—30 days before and 30 days after the date of the loss sale. Note, too, that an option to buy will be treated by tax officials as a purchase. (As for a disallowed loss, there's really no complete washout—the loss is added to the tax basis of your new stock.)

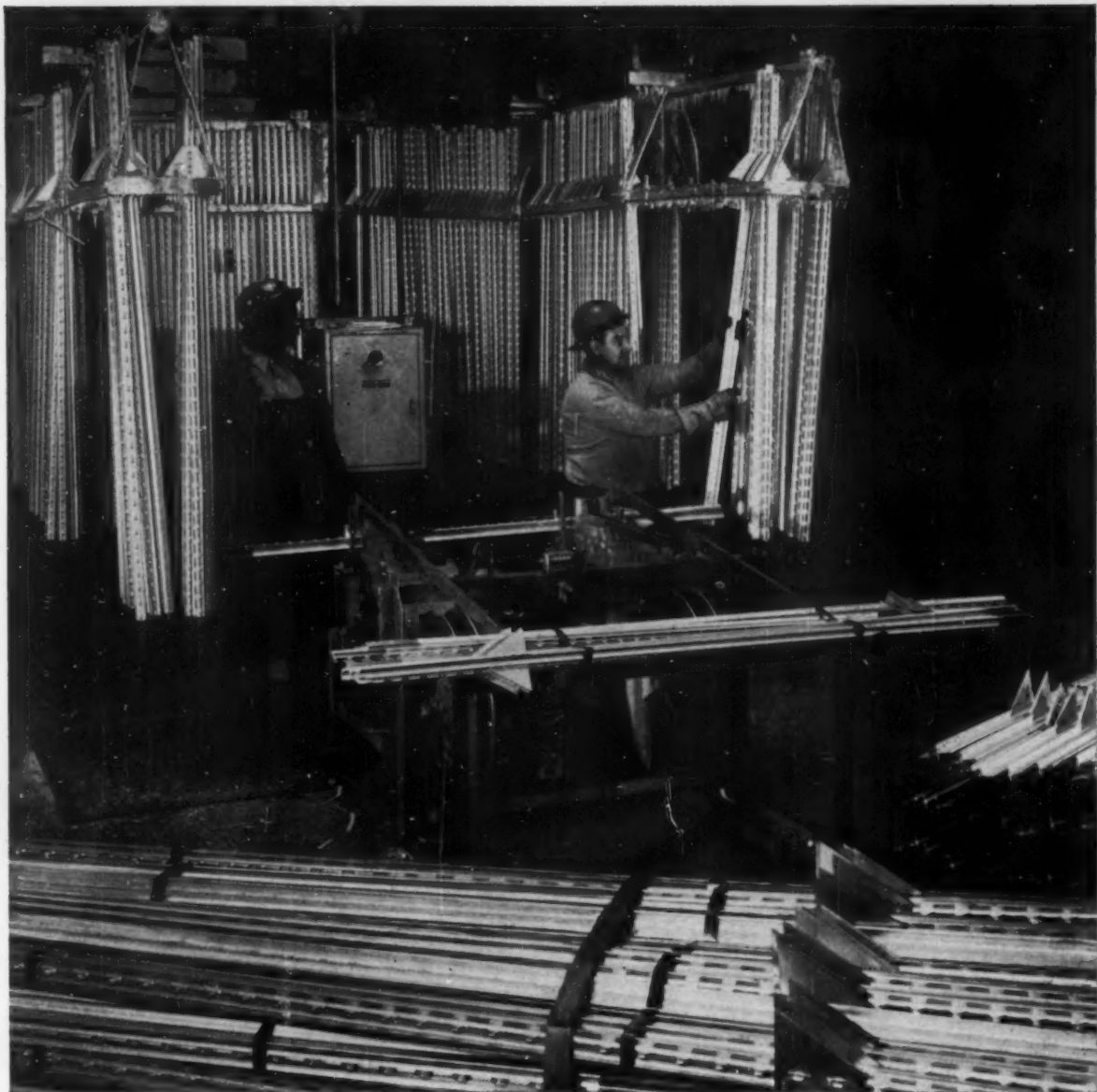
Timing: To take a loss, you can sell until the last business day of the year. To take a gain, you have to sell in time to make delivery by Dec. 31—exchanges have a four-day rule on this.

For the hunter's kitchen bookshelf: After you've bagged your deer and the horns are ready for mounting, the meat still isn't steak. There's an excellent new cookbook that gives pointers on the care, cure, and cooking of venison, and debunks many pre-refrigeration superstitions. It's the Venison Book, by Audrey Gorton (Stephen Greene Press, \$3.50).

For the executive's desk: A handy new reference book you'll probably find indispensable is the Dictionary of Business and Finance, by Clark and Gottfried (Crowell, \$6.95). The definitions are straightforward and concise, based on everyday business situations, and cover many fields from accounting and banking to real estate and the stock market.

Simple aspirin provides the most effective, long-term treatment of arthritis, according to latest reports from the Arthritis & Rheumatism Foundation. And, contrary to old wives' tales, the disease isn't merely a sign of advanced years. The fact is, it strikes hardest at the 20-45 age group.

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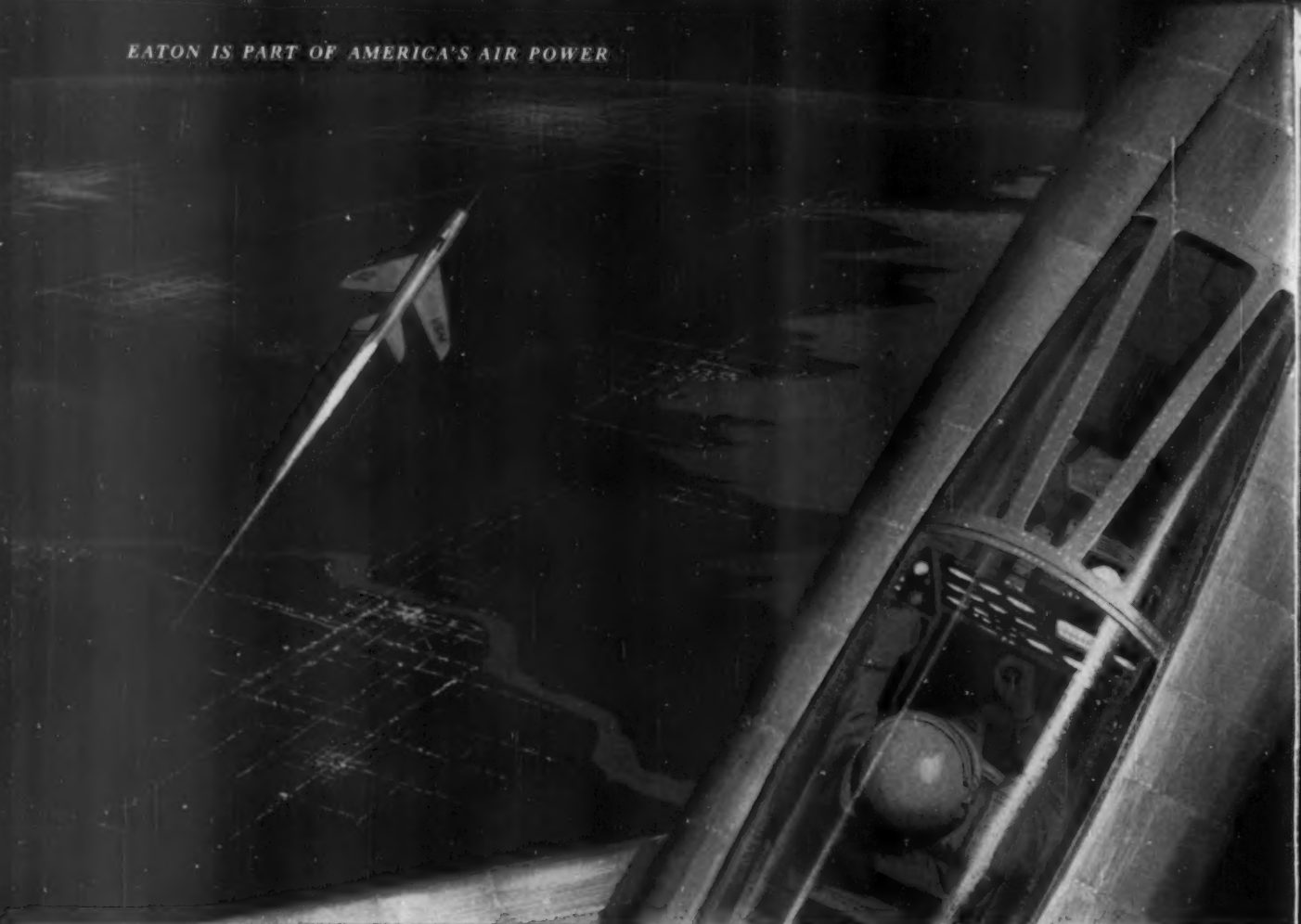


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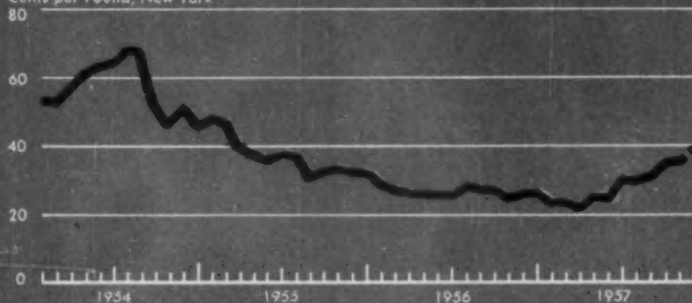
EATON MANUFACTURING COMPANY

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CHARTS OF THE WEEK

Cocoa Price

Cents per Pound, New York



Data: Dept. of Labor, BUSINESS WEEK Est.

Cocoa Stages Price Climb

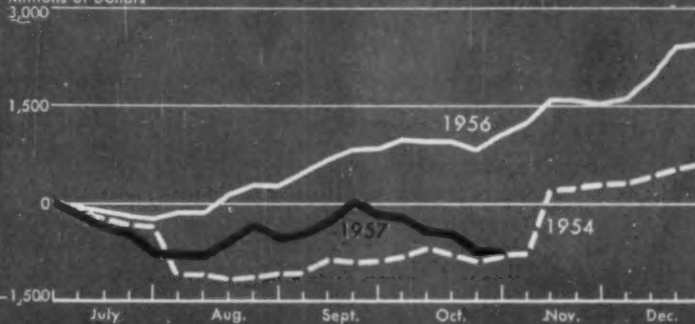
Cocoa prices have turned upward in recent months, with a sharp climb in the past few weeks. Reason for the rise is the smaller than anticipated crop now being harvested in Ghana, the biggest producer. The current price is the highest since early 1955, but well below the all-time high reached in 1954, when a shortage pushed the price to a peak. Last year world con-

sumption was at a record 800,000 long tons; the U.S., the largest single consumer of cocoa, used 27.5% of the total.

If the price rise continues, manufacturers may find it necessary to shift to substitutes developed during the 1954 squeeze, and candy makers may have to reduce the size of fixed-price bars in order to cut costs.

Cumulative Changes in Business Loans

Millions of Dollars



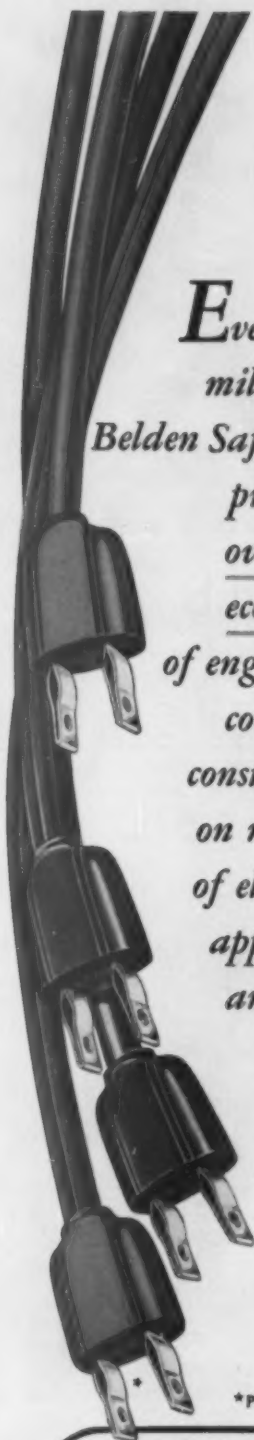
Data: Federal Reserve Board.

Loans Dip Steeply From July 1

Business loans of weekly reporting member banks of the Federal Reserve System have dropped more since July 1 than in any similar postwar period except 1954. The decline amounts to \$752-million, compared with an increase of almost \$1.1-billion in the same period a year ago.

This reverses the usual trend. After midyear, loans are apt to swing upward quite vigorously. One reason is the movement of crops into commercial channels as the harvest advances. Another is that processors of goods other than farm products are generally adding to inventories to cope with the usual

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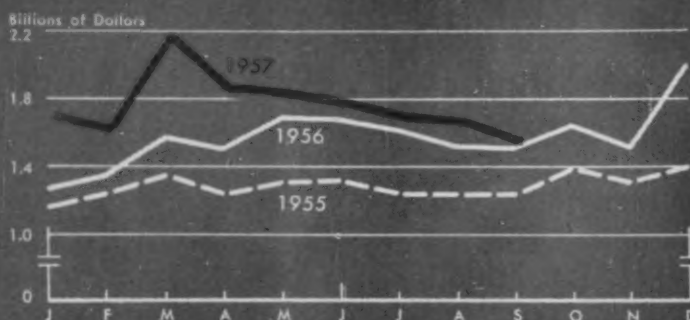
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Cable • Electrical Household Cords •
Electronic Wires • Automotive Wire
and Cable

autumn upturn in business. A third reason is retail stocking for the holiday sales season.

So far this season, crop movement has been about as big as in other recent years, and it's still too early for retail

stock building to have any marked effect on loans. So the failure of loans to turn up as usual is blamed almost entirely on slack in the manufacturing industries. This may have resulted in inventory liquidation, rather than accumulation.

U. S. Exports



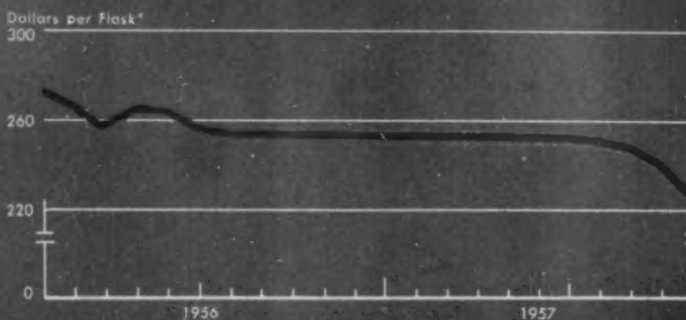
Data: Dept. of Commerce.

Exports Slide for Sixth Month

U. S. exports in September took their sixth straight monthly drop, reaching the lowest level so far this year. The September total of \$1,539,000,000 was about the same as a year ago, and 8% below August, 1957. The six-month

slide followed a sharp rise in exports in 1956 and in the early part of this year. Factors in this rise were increases in exports of manufactured goods and petroleum, as well as surplus farm commodities.

Mercury Price



*76 lb. Flask, New York

Data: E&M Metal & Mineral Markets.

Mercury Takes Another Dip

High U. S. production sent mercury prices tumbling last month for the fourth month in a row, following a year of steadiness. The dip to \$231.62 per (76-lb.) flask brought mercury to a three-and-a-half-year low. The current price level of \$230-\$233 per flask is close to the General Services Adminis-

tration purchase price of \$225 per flask. The price is not expected to fall much lower, since at present prices it is more profitable to sell domestic output to the government. The Office of Defense Mobilization has extended the buying program to Dec. 31, 1958, permitting the purchase of up to 50,000 flasks.

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Bloom Is Off Titanium's Rose

● Capacity for this costly and cranky metal has run way ahead of demand, with a push from Washington.

● Its future seems to be tied to military aircraft, the one field where it offers sharp advantages.

● The industry is groping for commercial uses, notably in chemical equipment. But the odds look long.

Producers of titanium, the wonder metal, are wondering where the wonder went.

All of a sudden, they're making too much of the metal, and it's piling up on their shelves. The figures are impressive. In 1950, the whole of U.S. production was a meek 15,000 lb.; last year, very nearly that many tons were turned out. Capacity is estimated at an annual 31,000 tons—for a metal that is costly to produce, cranky to handle, and has preeminent virtues only in a very narrow field.

Indeed, of last year's hefty production, only 5,100 tons—about 35%—were actually converted into mill products; one industry guess is that until the mid-1960s consumption will be leveled off at little more than 5,000 tons a year. And, many erroneous Wall St. reports to the contrary, there's no possibility that the growing use of titanium dioxide for paint pigment will bail the metal makers out. There is no connection between the metal and pigment fields, except that both are competing, in a sense, for the same cheap and plentiful raw materials—ilmenite and rutile ores.

• **Defenders**—As a result, there's a sizable chorus of voices saying that the swift development of titanium was a costly blunder. The majority of experienced fabricators won't go along with this. They admit the metal grew too fast, will need time to catch up with its capacity. But they say there's a permanent place for titanium as an engineering material, because of its lightness, strength, and resistance to medium-high temperatures.

When this combination is critical, titanium is close to the top among metals and alloys. It matches the strength of some steels while weighing only two-thirds as much. It's true that some aluminum and magnesium alloys can match this strength-for-weight factor, and cost much less. But, titanium K. O.'s these featherweight rivals when the temperature rises. Light metals soften like butter in the medium-high ranges from 500F to 1,000F,

where titanium keeps most of its strength.

Titanium holds its heat advantage as far as the white-heat levels above 1,000F, where it too wilts, leaving the field to steel alloys, superalloys of nickel and cobalt, and perhaps beryllium—when it becomes available.

• **Aviation's Future**—All this means that titanium sales depend pretty much on aviation—on how many planes are made using parts that fall in titanium's rather narrow heat range of superiority. If the upcoming round of aircraft are produced in quantity, titanium will play a big part. But if missiles take over the star role—missiles whose brief, soaring life does not call for the lasting quality of airplane frames—titanium is likely to be in much smaller demand. Even aluminum can withstand the brief jolt of high temperature that is all a missile must bear.

To make it worse, metallurgists are constantly seeking alloys of the light metals and steel that could invade titanium's present bailiwick.

In this situation, the present cutback in aircraft procurement has been the shrewdest blow of all to titanium, 90% of whose sales have been for aircraft.

• **Commercial Side**—To ease their cliff-hanging existence amid planes and missiles, the titanium makers are trying to edge into the commercial field, relying largely on the metal's remarkable immunity to corrosion by salt water, acids, and many chemicals. The chemical industry has been receptive, and the metal is also being used in marine fittings and electroplating racks. But the commercial buyers are chary, because of cost. Consider the West Coast company that offers a 6-in. high-pressure valve with stainless steel or titanium optional. The titanium model costs \$6,000; stainless steel \$325; mild steel \$260.

• **The Producers**—In this precarious market, there are seven makers of titanium sponge: du Pont; Union Carbide's Electro Metallurgical Co.; Titanium Metals Corp. of America—a subsidiary of National Lead and Allegheny Ludlum; Rem-Cru Titanium, Inc.; Mallory-

Sharon Titanium Corp.; Dow Chemical; and Cramet, Inc.—a subsidiary of Republic Steel and The Crane Co. In addition, Kennecott Copper and Allied Chemical are planning an integrated facility for their joint subsidiary, Allied-Kennecott Titanium Corp., at Wilmington, N. C., while National Distillers is building a sponge plant.

All of these companies are wrestling with the same problem of cost. Any new material is likely to be very costly until volume production is achieved, then it drops quickly. But for titanium, the drop has been illusory. It's true that the cost of sponge, the basic raw materials, has dropped from \$15 a lb. in 1950 to \$2.25 today. But titanium sponge is an unusable, bubbly mass of metal. And the cost goes right back into two figures by the time it has been solidified into ingot in vacuum melting furnace, alloyed with other metals, and rolled into sheet. High-strength, heat-treated titanium alloy sheets cost up to \$20 a lb.

• **Hard to Handle**—Price is only one of titanium's troubles. The metal is slow and tough to machine, difficult to form at room temperature, and often needs argon or some other protective atmosphere when it is worked hot, welded, or heat treated. Fabricators have found—often at considerable cost—that it requires special tools and knowhow.

Only a whole series of technical breakthroughs, none of them in sight now, would bring the price of titanium mill parts down from the \$10-\$20 a lb. range to the \$2 a lb. that would be commercially useful, according to the chief engineer of a Pittsburgh supplier of chemical equipment. This engineer says that above \$2 "few will be seriously interested in working with it for non-military applications." He says that now there's no incentive to push titanium parts, though it is possible to figure costs accurately. The finest stainless steels—thought of as virtually precious metals—are cheap compared to titanium, and can almost always do the same jobs.

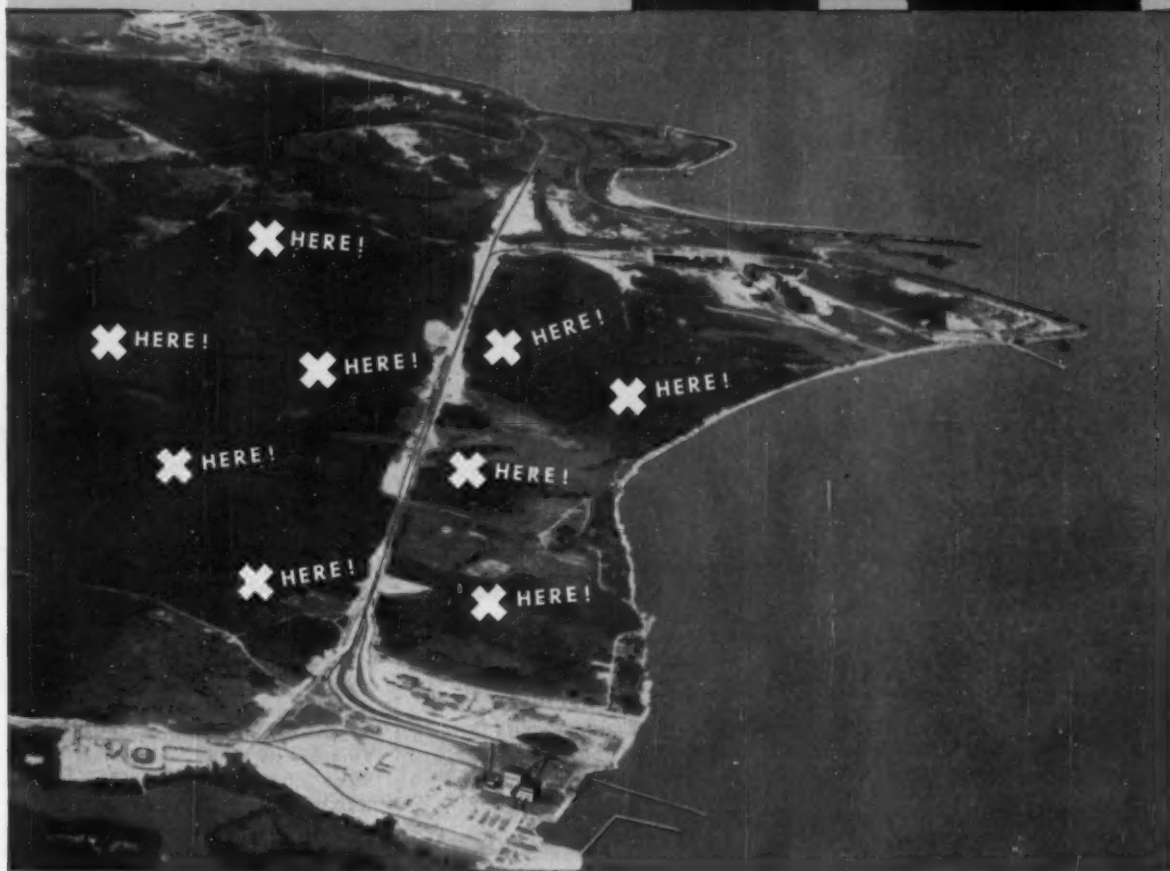
Cost-conscious auto makers won't even look at titanium. A Chrysler spokesman says, "If we could get it for 75¢ a lb., we'd consider it as an alternative to stainless." The same man admits it might be interesting for use in marine engines. As for General Motors, which made some titanium panels for its experimental Firebird 11 turbine car a few years ago, it now says the metal is too hard to handle at any price.

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" . . . titanium got a bad name because too many fabricators plunged in blindly . . . "

TITANIUM starts on p. 176

titanium is Wyandotte Chemicals Corp., which turns out such corrosive chemicals as caustic soda and chlorine. Wyandotte uses titanium in a heat exchanger, some piping, and for pump impeller blades; it's experimenting with welded titanium pipe, and a titanium lining for a reactor tank. Company researchers say the metal is holding its own in terms of cost per year of expected life.

That field of chemical processing where initial cost is secondary to durability may prove to be titanium's biggest market. The Nooter Corp., St. Louis specialist in boilers and reactor vessels, is working on a \$500,000 order for titanium tubing, and reports other orders for containers where corrosion and erosion are problems. Nooter says the metal is hard to handle, "but not impossible."

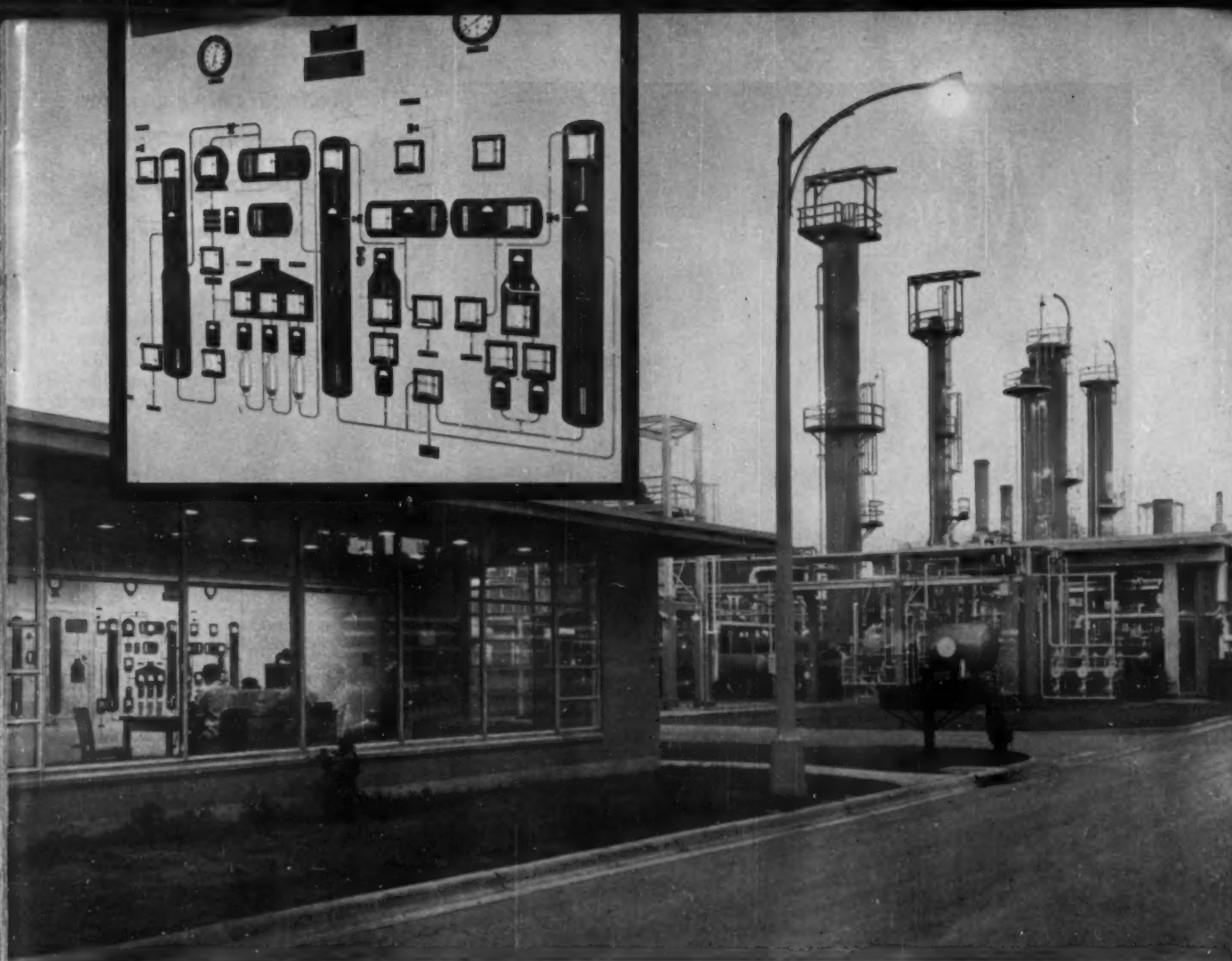
• **A Doubter**—Opinions on titanium vary widely among other non-aviation fabricators. Dr. Ralph Liter, metallurgical research chief for the Budd Co., concedes a future for the metal in chemical equipment, but hardly anywhere else. Still, he says "We'd be interested in titanium if it were competitive with stainless steel."

Pres. H. Thomas Hallowell of Standard Pressed Steel, is much more optimistic. He says SPS, which makes titanium fasteners, has completely licked the fabrication problem. He adds that titanium got a bad name because too many fabricators plunged in blindly, and admits that there are still risks and unsuspectedly high costs.

Undoubtedly, these differences of opinion arise from the fact that companies have different definitions of what it means to have fabrication under control. For instance, Ray Thomas, of Detroit's Thomas Industries, admits early troubles but adds cheerfully that, "After eight months, we can now do in five or six hours what would be a 45 minute job with other metals."

• **Air Enthusiasm**—The one industry where everybody loves titanium is military aircraft, because performance outranks price.

The rule of thumb in the trade is that it's worth \$50 to shave 1 lb. off the weight of an airframe. So, for military craft, titanium's weight advantage over stainless steel gives it the edge. Even in commercial planes, the builders use titanium for the easy-to-form parts such as firewalls and engine shrouds,



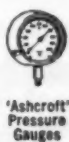
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"... producers have cracked the worst problem—getting the metal in thin gauges..."

TITANIUM starts on p. 176

though they shun it where the fabricating costs would skyrocket.

On the West Coast, almost all aircraft makers have regained their first love for titanium, after a spell of disillusionment. The industry blames the present slowing in orders for the metal on two things:

- Realization that research on the metal cannot be rushed.
- Defense cutbacks in aviation procurement.

Here's a round-up of what aviation companies think about titanium and how they use it:

Marquardt Aircraft is typical of the companies that have warmed up to the metal in the past few months. Thumbs were down in December, now Marquardt is considering ramjet engines made entirely of titanium; it says Rem-Cru claims an alloy that can hold its strength at the 1,400F ceiling that Marquardt needs. For now, the company is using the metal for low-strength applications in the 800F to 1,200F range. Marquardt is able to use aluminum and magnesium in higher than usual temperature applications because its designs call for only brief exposures.

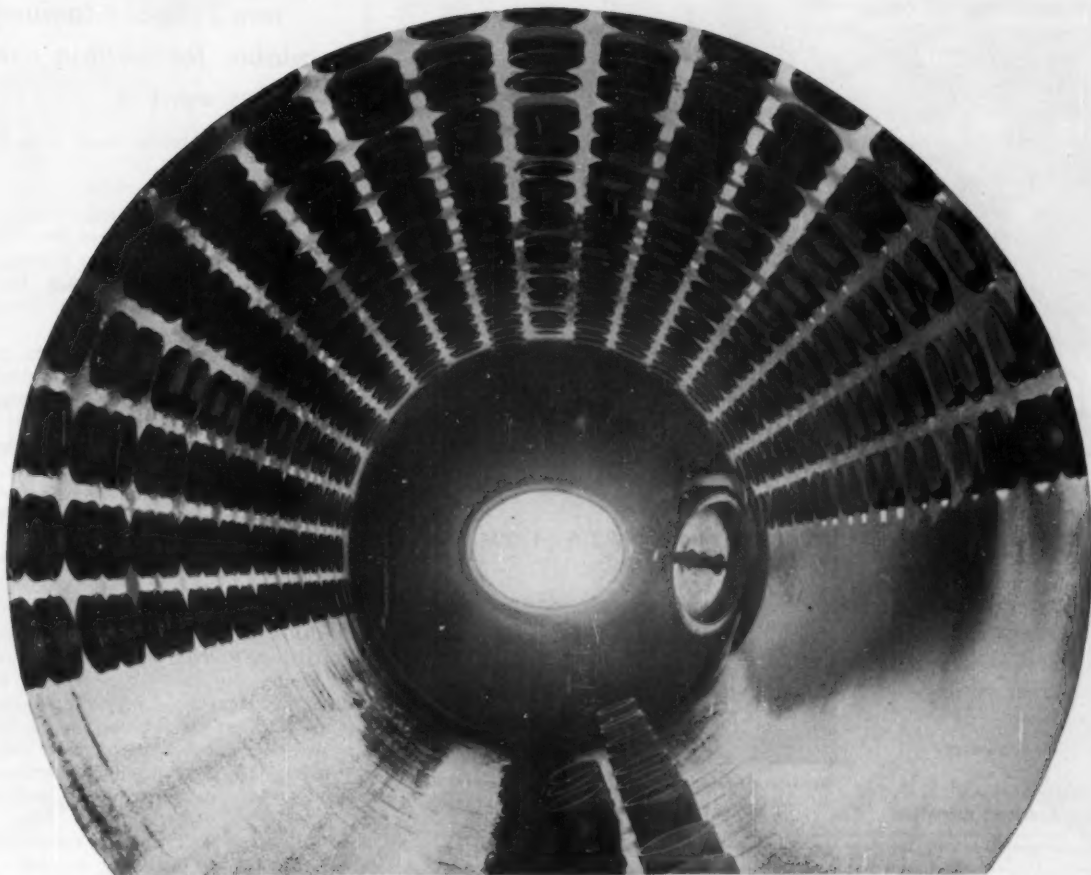
Northrup Aircraft uses titanium widely for fasteners, engine shrouding, fuselage frames, and skin. The company says fasteners using a new titanium-molybdenum-aluminum alloy can withstand up to 220,000 psi. at the temperatures up to 1,200F, and feels this alloy may be useful in larger parts.

Convair Div. of General Dynamics uses titanium in both missiles and aircraft in applications up to 750F. In the company's commercial jet airliner, the use of 1,200 lb. of titanium nets a weight saving of 900 lb. Convair says that in the past two months producers have cracked the worst problem—getting the metal in thin gauges and accurate thicknesses.

Douglas Aircraft has used titanium in civilian transports, about 800 lb. in the new DC-8. Douglas says the cost isn't quite justified yet, but expects lower prices.

North American, a pioneer in the metal, has cut back its orders drastically since cancellation of the Navaho missile program. The company is still using a good deal of titanium in Navy planes and for the F-100, and expects to continue.

Boeing hasn't used much titanium yet, but boosts it heartily and sees extensive use in the new phase bomber—



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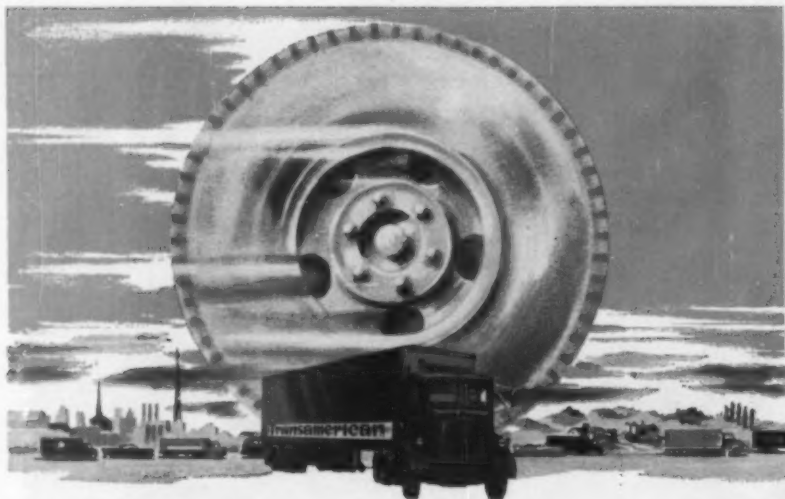
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TITANIUM starts on p. 176

the chemically fueled WS 110. To withstand the high temperatures expected from skin friction in this super-speed bomber, Boeing plans a titanium frame and a stainless steel skin. Up to 45% of the airframe weight may be titanium.

Incidentally, there's a sinister note for titanium in that switch to stainless steel skin, for it means that the planes of the near future may be too fast for titanium's heat resistance. Indeed, Grumman Aircraft has already turned to stainless steel for the after section of one of its interceptors—partly for cost, partly because of heat.

Republic Aviation sees a bright future for titanium in planes and reports no recent production troubles. Republic's F-103, recently canceled in mid-development, was to have been almost entirely titanium, and the F-105, now in production, uses a considerable amount. Consumption of the metal has been slowed by stretched out defense orders.

Chance-Vought uses a lot of titanium in its latest supersonic planes, and sees no reason to cut back.

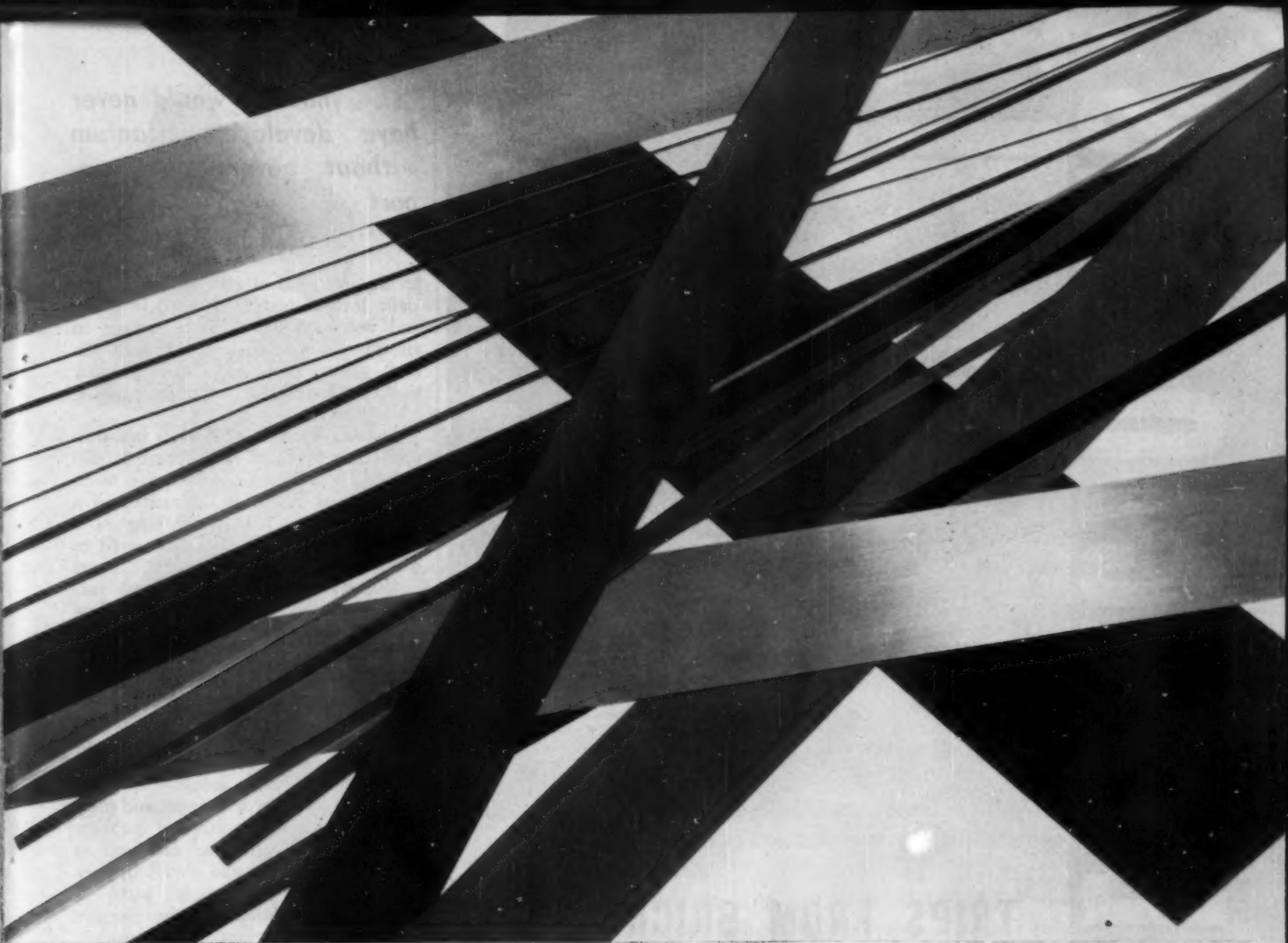
There's a dissenting voice raised in St. Louis, where McDonnell Aircraft Co. uses the metal but finds it "difficult to form, and costly on a tooling and experimental time basis." McDonnell claims the government pushes the use of titanium because it is available domestically and would be plentiful in time of war.

• **Government Money**—The logic of the push is sound, and Washington has consistently nudged the producers. Five plants have gotten fast tax write-offs—two for du Pont, one each for Cramet, Titanium Metals, and Union Carbide—for a total of \$84.5-million on a capacity of 22,000 tons per year.

Four government contracts call for delivery of titanium sponge at \$4.50 a lb., and two of the contracts have "put" clauses obligating the government to buy any metal the producers can't sell elsewhere up to 1960.

The government has also underwritten projects aimed at discovering new ways to cope with the balky metal. Some of the "solutions" found by the airframe makers would turn an old-time metalworker's whiskers pink; they work, but at a price appalling to commercial users.

Thus Boeing coats titanium sheet with a glass compound to keep it from absorbing contaminating gases during heat treatment. When the metal is quenched in water, the glass cracks off. North American has developed a



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" . . . industry would never have developed titanium without government support . . . "

TITANIUM starts on p. 176

technique called creep forming. A partially formed part is clamped in a die, and both are baked in a furnace in an argon atmosphere. McDonnell Aircraft sinks a press and dies in hot oil, to keep the part hot during the forming operation.

• **Casting Trouble**—Titanium has sturdily resisted all efforts to cast it efficiently. The metal is so reactive when molten that it has to be melted in a vacuum; it can't be held long in a crucible for it will either react with or dissolve any known material. Some casting has been done, with high vacuum equipment or inert gas shielding and solid graphite molds. The results have generally been poor, with rejection rates high and costs formidable.

It may even be that casting troubles will spell the doom of titanium. Other light metals such as aluminum and magnesium got their starts largely as cast materials; only recently did the tonnage of wrought aluminum and magnesium exceed the tonnage of castings. Since titanium can't be cast and is hard to machine, it will always be very costly to use it for complex parts. If the metal is limited to the simpler forms of sheet, forgings, and extrusions, the producers will have a hard time developing the volume needed to bring down prices.

• **A Feat**—For all its disadvantages, titanium is a remarkable chemical achievement. Its producers cheer themselves up by noting that the metal is a lot further along in its first 10 years, than aluminum and magnesium were in theirs. This comparison is of doubtful validity. Unlike the other light metals, titanium got off the marks pushed by hundreds of millions of dollars in government money. And whether its early production successes can be duplicated in the fabricating shop is questionable.

Except in the aircraft industry, there is a solid doubt whether titanium could have made its own way except as a low-volume specialty material. Industry would never have developed it without government support. But granting that government support—with the industry a going thing, with adequate knowhow—industry will undoubtedly use it whenever the cost is justified. Still, that adds up to a thin and precarious market, with many of the uses still experimental even in chemical equipment. The fate of the metal won't be clear for years. **END**



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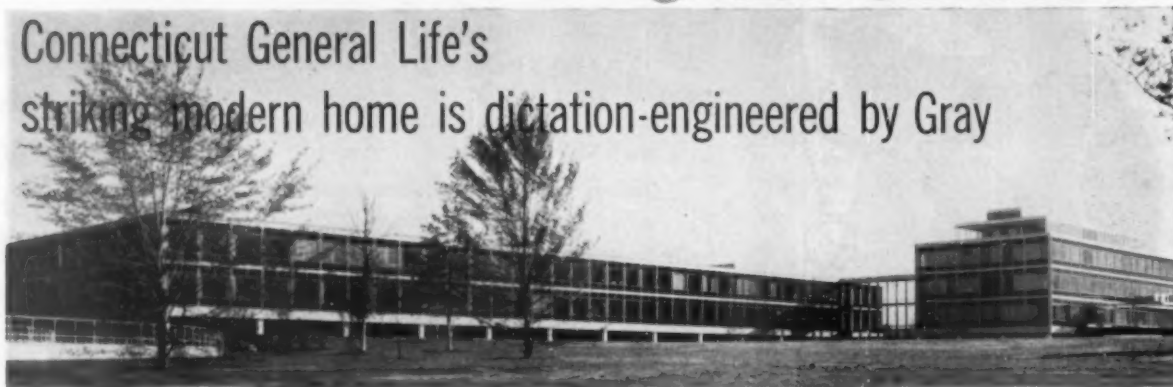


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The Greek Gifts in the Day's Mail

THERE'S DYNAMITE in the morning mail for more companies than ever these days. It comes in the form of unsolicited ideas—some in a spirit of goodwill from people who have not thought of being paid for them, most from gadgeteers and inventors who would like to make a sale.

In today's competitive world, companies are hungry for new ideas. But not for the ideas that come in the morning mail. Those usually get a mere glance of recognition from a mail clerk before being slapped into a return envelope with a form letter saying: "We won't even look at your idea until you get a patent or sign a waiver."

Why are ideas so sought-after in theory and so unwelcome in practice? Company lawyers have the answers. Unsolicited suggestions fall, in legal parlance, into the category of "confidential disclosures." Only at its legal peril can a company adopt any semblance of an idea that has been confided to it.

COMPANIES have been burned when they failed to take precautions. Failure to return an idea to its author has been held by juries—often ready to favor the struggling genius over the fat corporation—to constitute tacit acceptance of a contractual obligation.

Procter & Gamble Co. is being sued right now for \$1-million by a woman who claims she suggested the blue dye in soap powder that P&G later used for Blue Cheer. Just the other day, P&G lawyers asked the court to dismiss the suit on the grounds that this wasn't a new idea anyway, but the court denied the motion.

Chrysler Corp. fought a similar suit a while ago and won only because of the precautions it takes with mail. Six clerks at Chrysler headquarters spend most of their time winnowing out unsolicited suggestions that come in the mail—I,000 or so each week. Like 80% of other major U.S. companies, Chrysler has a rule that each idea be sent back with a waiver form to be signed before the company considers it.

Many years ago, an inventor

went through this formality, waiving any implied obligation upon Chrysler, and his idea was considered by the engineering department. It was for a license plate holder that would fit in the fender. "Thanks, sorry," the engineers told the inventor, "the idea isn't new to Chrysler or the industry." Six years later, the inventor tried again and got the same answer. He sued to prevent Chrysler from ever using "his" idea. In court, Chrysler produced the waiver form, rejection letter, and evidence of similar but earlier ideas. The suit was dismissed.

There's enough danger and enough nuisance in such suits to back up company lawyers in their precautions against even a tiny peek at someone's brainchild. But, in a broader view, is it wise to stifle new ideas, whatever the cost?

MANY EXECUTIVES, management consultants, and law professors wonder.

Stress these days is on new products and on money-saving short-cuts. At the same time, television advertising and a diet of news stories about scientific advances have stirred the general public into creating more ideas, ranging from the whacky to the profound. But the Patent Office is a bottleneck, with a backlog of 211,000 cases at the end of September. It takes more than three years for the simplest invention to be patented. In that time, the idea could be outdated.

Congress has initiated a program to reduce the time for obtaining a patent to between one and two years. Meanwhile, however, idea-hungry companies are wondering if it's smart to ignore the inventors who approach them first.

Perhaps the dangers of litigation from considering these ideas have been overrated. About 20% of companies already read their mail regardless of the lawsuit peril. These are usually the smaller outfits, without empires of lawyers, and some probably aren't even aware of any danger. Yet a Harvard Law Review survey in 1952 indicated that such companies seem to suffer no greater legal difficulties than companies with protection.

ONE PAINFUL truth is that very few ideas in the year's mail are worth anything. Product Development Corp. (BW—Feb.9'57, p86) is in the business of reading this kind of mail for companies that don't want to do it themselves. Out of about 20,000 letters per year, the company gleans around 100 that might have practical possibilities for their clients, and only a dozen will ever get a real trial.

By the same token, of course, so few ideas have any conceivable application to a company's product line that looking at everything can hardly put the company in serious legal jeopardy. At least, it's a view held by Lawrence Taylor, wartime head of the Navy's Office of Invention, now president of Taylor Laboratories in Holmdel, N. J.

"The job of a company's legal department is not to set the policies on products and sales features," says Taylor. "Today they're doing just that."

Taylor goes so far as to urge that every company set up a group of competent men to review all confidential disclosures, with the sole responsibility of searching out and evaluating new product ideas. This group, he says, should be completely independent from other staff units, to eliminate the defensive "we can think of those things, too" attitude that entrenched engineering and research people often take.

In fact, says Taylor, the group should have a six-month or one-year quota of new product ideas to be produced solely from outside the company, and a budget to be spent entirely on buying such ideas.

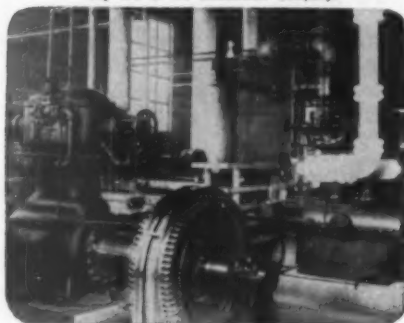
Taylor reasons that inventors are increasingly reluctant to go through Patent Office red tape, would prefer to sell their ideas directly to manufacturers but resent the rebuffs they get. Likely as not, he says, inventors will go instead to suppliers who are readier to look at their brainchildren, and the prime manufacturers will pay a higher price in the end for the same idea.

Whether or not Taylor's suggestion is the answer, it is certain that business is readier than ever before to think of some alternatives to the automatic rejection slip.

"We find FRICK Refrigeration Indispensable"

Says J. A. Hauser, president of the C. H. Musselman Co., Biglerville, Penna. Now celebrating its Golden Anniversary, the firm is one of the world's largest processors of apples, cherries, peaches, berries and tomatoes.

Beginning in 1934, the Musselman Co. has installed Frick refrigerating systems in each of its four big plants. The original Frick compressors are still running efficiently. A total of ten Frick machines are used today for process work, quick freezing and cold storage.



If you want up-to-the minute cooling equipment, engineered to your special needs—whether for air conditioning, ice making, quick freezing or other refrigerating work—get in touch at once with

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(Zone 2: Texas and 11 Western States.) Copyright, 1957

Self-Correction

Rapids-Standard Co. was in trouble until it applied its own specialty—materials handling—to the problem.

Five years ago, Rapids-Standard Co., Inc., a manufacturer of materials handling systems in Grand Rapids, Mich. (annual sales: about \$12-million), built itself a new one-floor plant filled with the latest in automatic tools and equipment. Two years later, the plant was operating at capacity, and orders were piling up—but profits were down and costs up. Worse still, for the very reason that some operations were more efficient in the new plant, there were new log jams farther down the line.

It would have cost Rapids-Standard more than \$300,000 to add enough space to speed production all along the way. So, for a third the cost, it turned its entire main plant into an experimental laboratory to test new labor-saving ideas and learned how to use existing facilities more efficiently. As a result, the company was able to save more than \$500,000 a year, and the plant's productive capacity was boosted 50%.

● **Diagnosis**—Company officials decided their problems were twofold: (1) They had more capacity than they could efficiently control and (2) even though it seemed that a controlled-flow approach would be an answer, such a setup had never been designed for a job-shop manufacturing operation. So they went ahead with an evaluation of methods. Now they have new techniques such as these:

● To cut down on movement of materials, central storage was abandoned, and everything is stored near where it is used.

● To avoid excessive jockeying of lift trucks, materials are loaded onto storage racks from the side.

● Standard items such as conveyor wheels are stored in semi-automatic, conveyor-fed outside silos.

However, the biggest change of all was to build overhead flow racks in unused air space. Whenever possible, the racks were placed to make it possible for one department to load them with its product and the next department to pull the items off the other end as needed. And in keeping with this approach, even departmental offices were built into the wasted overhead space.

Rapids-Standard also developed powered lifts to move heavier items, such as steel dies, in and out of the overhead storage racks, a dozen feet off the ground. Another innovation was

New Continuous
Trunnion
Sawing Machine
**AUTOMATICALLY
PROCESSES**

1500 pistons
hourly

Leading automotive producers realize that machine tools can be obsolete—although only 6 months old—if newer machines can do the job better, faster, for less cost. In checking their production operations, a prominent automobile builder gave us this problem:

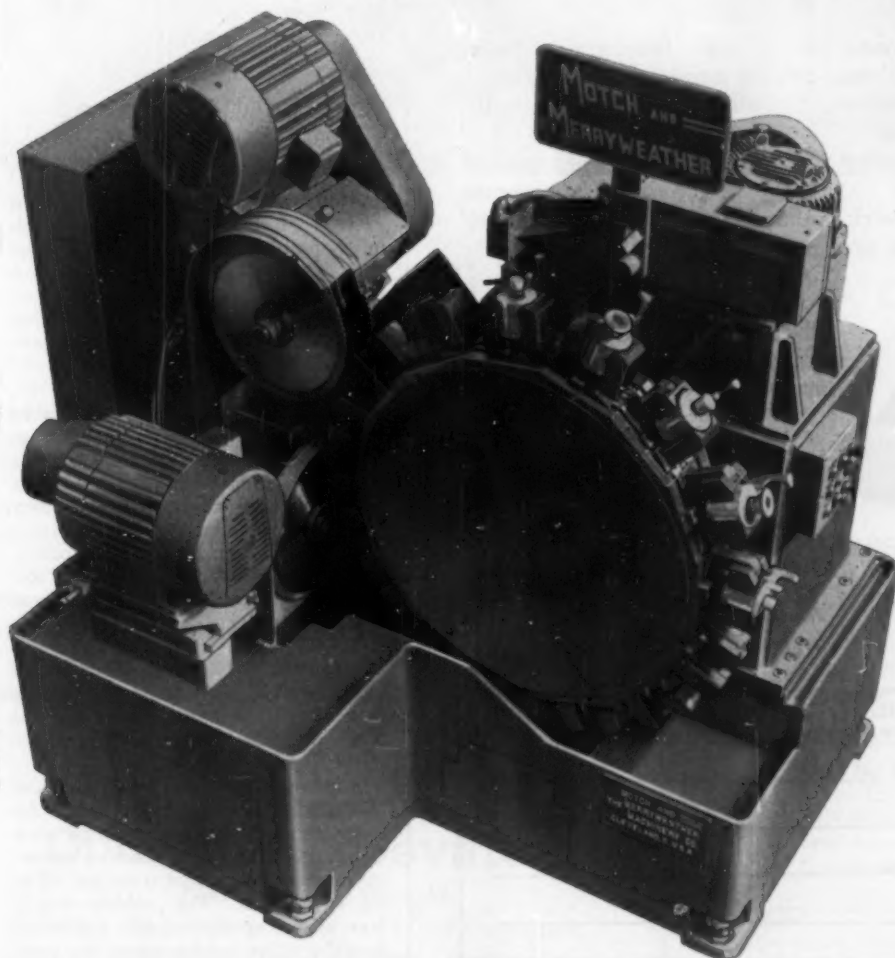
"Can you design and build a continuous trunnion sawing machine that will eliminate individual sawing operations necessary to prepare our aluminum engine pistons for further machining? It must combine fast sawing with automation to produce 1500 pistons per hour at 100% efficiency."

Our field engineers immediately studied this customer's existing piston sawing operation—then submitted a complete Motch & Merryweather MTA (Machine Tool Analysis). As a result of their findings, we designed and built this improved Continuous Trunnion Sawing Machine that met all the specifications outlined above. It efficiently and economically cuts away both risers and side gates from the pistons—automatically after loading.

Why not check your machine tools for economic obsolescence—even though they seem to be in perfect operating condition. It can pay off in increased production—and profits, too. Call us today. A Motch & Merryweather specialist will see you immediately. Naturally, there's no obligation on your part—only on ours to help improve your existing production machining processes.



Machine Tool Manufacturing Division
Cutting Tool Manufacturing Division
CLEVELAND
Avey Division, Cincinnati

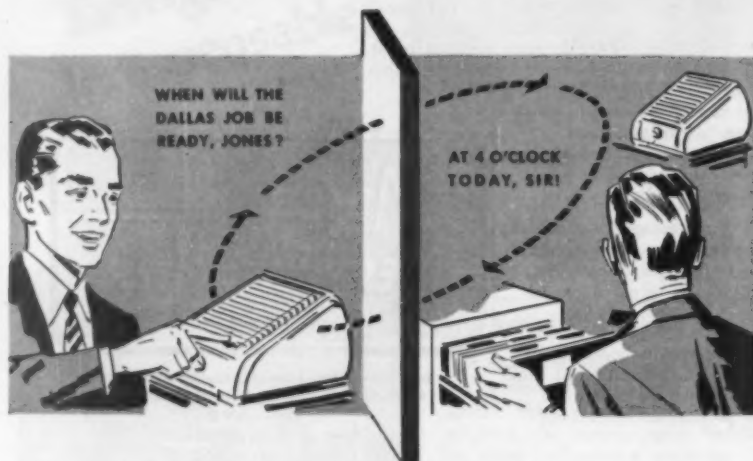


This new Motch & Merryweather Continuous Trunnion Sawing Machine was designed to provide the following fast, automatic cycle of operation:

1. Manually load pistons into trunnion fixtures.
2. Trunnion rotates while mechanically clamping pistons in fixtures.
3. Cut-off side gates.
4. Cut-off risers.
5. Fixtures are mechanically unclamped—then pistons are gravity unloaded onto take-off conveyor.

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to suspend the welding jigs needed in production from an overhead trolley beside the welding station. That way, the welder could switch jigs without leaving his place. In warehousing, the same sort of trolley system was used to store odd pieces, such as curved conveyor track sections, within easy reach.

• **Net Effect**—By making so much use of overhead areas and outside silos, and making storage space more compact, the company was able to save itself more than an acre—including 5,000 sq. ft. in the welding areas and 4,500 sq. ft. in receiving and central stores.

Along with its new setup for handling and storing materials, Rapids-Standard installed a new material control system based on color-coded IBM cards. This reduced the time necessary to fill out labor cost forms from as much as 10 minutes to only a few seconds. And by giving the production department closer control over both production and materials, it made it possible for the company to cut inventory by \$100,000.

Rapids-Standard's president, James R. Sebastian, has dubbed the new method "technics," because it dovetails materials handling with the mechanics of production.

Joint Effort to Solve Problem of Pollution

After spending more than \$1-million in vain efforts to solve a stream pollution problem, three competitive fiber manufacturers have joined forces to save their collective necks.

Two of the companies—Taylor Fibre Co. of Norristown, Pa., and Continental-Diamond Fibre Div. of the Budd Co., with headquarters at Newark, Del., but a plant at Bridgeport, Pa.—are faced with an ultimatum from the state of Pennsylvania. Either they must find a way to clean up the effluent from their plants on the Schuylkill River, or they must stop taking water out of the river. That would mean closing their plants, which use millions of gallons of water daily in making rag stock paper, basic raw material for their vulcanized fiber products.

The third company, National Vulcanized Fibre Co. of Wilmington, Del., is under less immediate pressure but has joined the pollution-control program to protect its future.

• **Stubborn Problem**—These companies make the stock material from rags. An early step in manufacture is to cook these rags in an alkaline solution, removing organic matter that is carried off in the waste water. The problem then is how to remove this organic matter before the water is returned to the river.

Pennsylvania requires removal of



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In buildings to 6-story heights, big savings in construction costs are realized with Rotary Oildraulic Elevators. This modern elevator needs no expensive penthouse. It is pushed up from below by a powerful oil-hydraulic plunger, has no overhead machinery.

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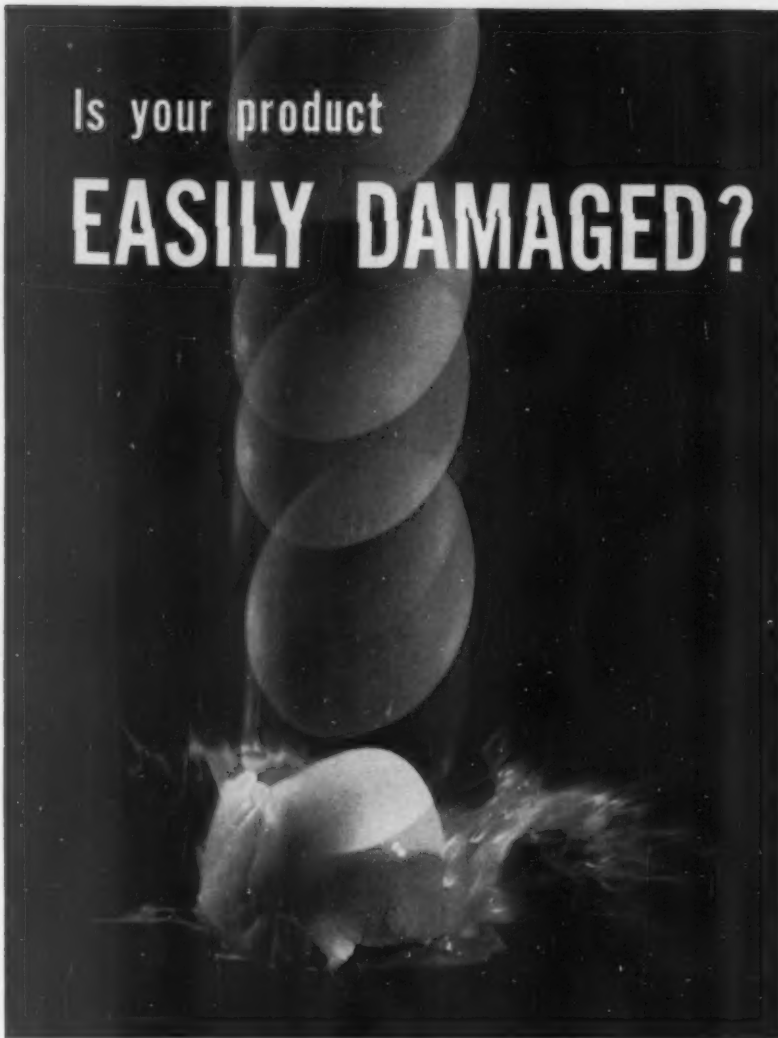
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85% or more of the solids and organic matter before industrially used water can be dumped into a stream. The organic matter is a particular target of stream conservation groups, for it depletes the oxygen content of a river, killing the forms of life that would otherwise combat the pollution.

Continental-Diamond spent \$750,000 and Taylor spent about \$350,000 in looking for a chemical treatment to remove organic matter as well as solids. When the problem of organic matter remained unsolved, they retained Weston & Eckenfelder Associates, Inc., engineers who specialize in pollution control. National Vulcanized Fibre soon joined the project.

• **Biological Control**—The engineers set up two pilot plants at Continental-Diamond's Bridgeport mill to test two biological treatment methods. This type of treatment is as old as cesspools, but the engineers and their clients hope to prove new equipment that may for the first time provide an economical way of applying the treatment to industrial waste.

One pilot plant used a 21-ft. tower in which waste water trickles over a bacteria culture that grows on a plastic medium and feeds on the waste. Roy F. Weston, president of the engineering company, says that 60% to 70% of the organic matter is removed at each pass.

The second study uses activated sludge—suspended biological solids provided with additional oxygen—to remove the organic matter either by settling it to the bottom or by floating it to the surface of the water. Compressed air provides the sludge, suspended in water, with extra oxygen.

In the sedimentation tank, the sludge traps the organic matter and drags it slowly to the bottom. In the flotation tank, water containing dissolved air under pressure is mixed with the waste water, and the millions of tiny bubbles that escape when the pressure is released carry the organic material to the surface, where it can be skimmed off.

Either way, some of the organic matter is also destroyed by oxidation and some goes into the biological synthesis that sustains the process.

• **Choice of One**—Pilot plant operations in the past few weeks indicate that either the trickling filter or the activated sludge process will remove 85% to 95% of the organic matter from the waste water. This would seem to meet Pennsylvania requirements. The choice between the two systems will depend on cost of installation and operation, as well as efficiency.

Indications are that an activated sludge plant may be cheaper to install but more expensive to operate than the trickling filter tower. **END**



How Valuable Is Recognition?

James D. Robinson, Jr., Chairman, The First National Bank of Atlanta, says:

"In the new South, as in other thriving areas, companies use industrial advertising in an effort to hold down the cost of sales. Industry's financial partners should encourage the efficient use of advertising to perform basic selling functions for the salesman. Certainly investing funds to stimulate recognition of a company's name is just good business."

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Send me full details on the items I have checked above, and give me information about the location services offered by you.

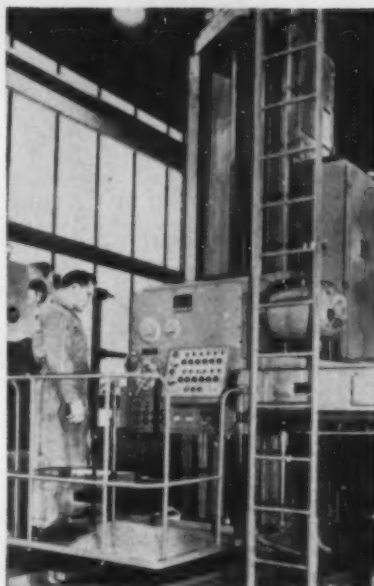
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NEW PRODUCTS



Milling Machine Works...



... Faster by Electronics

The electronics invasion of the craft-dominated machine shop is slowly accelerating, thanks largely to the development work done by the tool maker for the Air Force Materiel Command (BW—Mar. 9 '57, p183).

The Kaukauna Machine & Foundry Div. of the Giddings & Lewis Machine Tool Co. is the latest to hitch tape controls to its line of floor-type horizontal boring, drilling, and milling machines (pictures). Cost of the system and the basic machine to which it is applied runs between \$70,000 and \$75,000. Company officials say this price puts the electronic control system—or numerical control, as it is called—within the reach of the small job shop operator.

The outstanding feature of the control system is its versatility. A machine so equipped can still be controlled manually, or it can be controlled through a dial system or by a punched tape. Using either the dial or tape control system virtually eliminates the need for layout work, the time-consuming and

nerve-wracking task of reading and setting verniers, and the need for making templates or jigs. The punched tape system, particularly, speeds up the process while cutting down sharply on spoilage.

On a complicated machining task, Kaukauna officials claim, the savings in time and rejects can pay for the whole control system itself in one job.

Portable Radar Devised For Measuring Distances

Radar has gone to work to simplify surveying. A new lightweight, portable radar set measures the travel time of radio waves to determine distances up to 35 miles accurately within 2 in.

Developed by South Africa's Council for Scientific & Industrial Research, the surveyor is known as Tellurometer. The system consists of a master station and one or more slave stations to broadcast the radio waves back. Each instrument weighs only 57 lb.—with carrying case, tripod, and power pack, but without the battery.

The Tellurometer can measure any distance from 500 ft. to 50 miles. It can be used at night, on land, and even in forests if the trees are not too thick. In surveying on land, it's possible to set up the equipment, take readings, and pack up for the next move in only half an hour. And offshore survey crews can pinpoint their exact location by setting up two slave stations on shore and measuring the distance and angle to both.

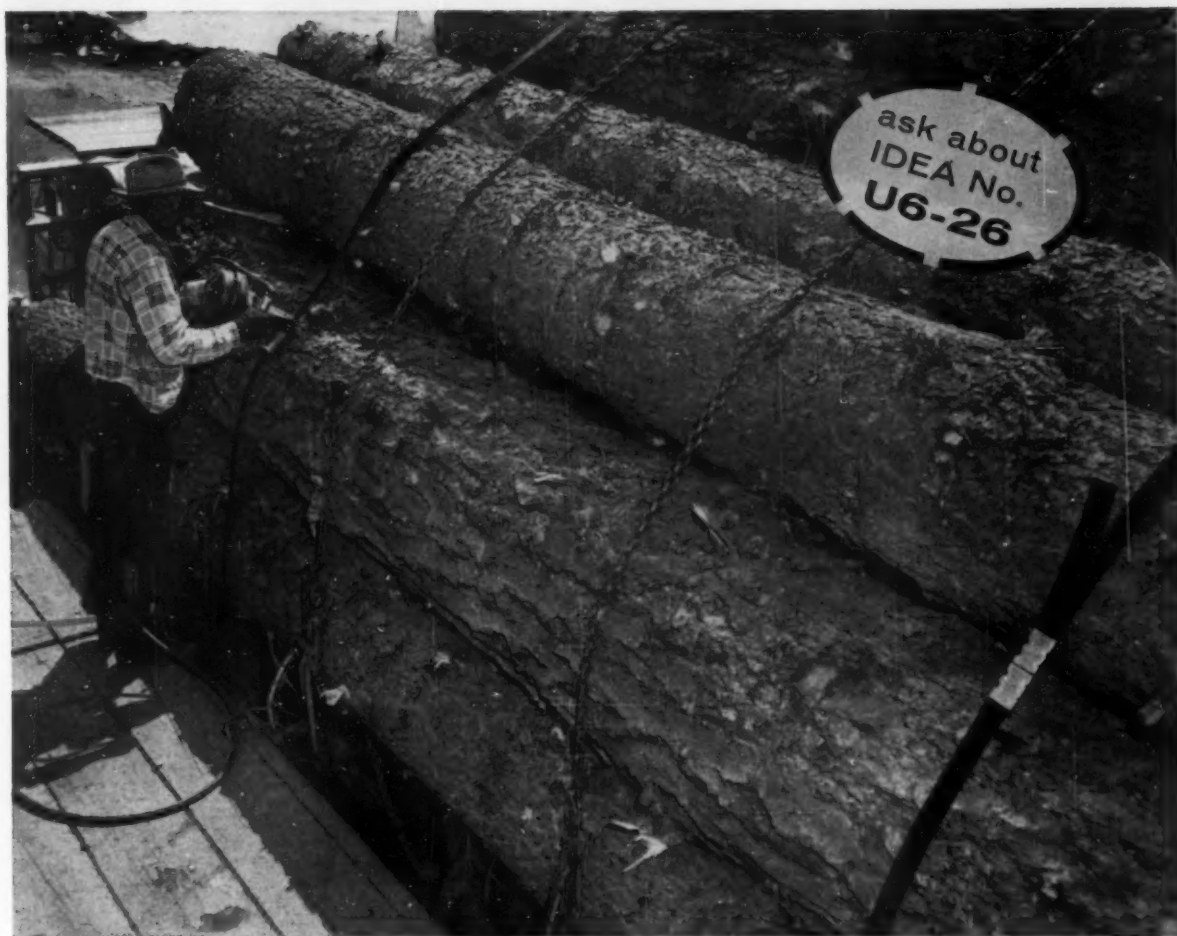
The surveyor is available in the U.S. through Tellurometer, Inc., Washington, D. C. A two-unit system sells for \$9,962.

Swimming Pool Reactor To Fit in College Labs

A simplified, lowpower nuclear reactor for use in engineering schools and universities is now available from the Nuclear Products—Erco Div. of ACF Industries. Though the power output is only one watt, ACF says this newest in their line of training reactors has all the features found on larger and more expensive units.

Designed to minimize problems of installation, this reactor is semi-portable, needs no excavation, and thus can be installed in existing buildings. Including the concrete shielding, it can fit into a space 16 ft. by 14 ft. by 10 ft. high. Nor should operating requirements tax the building departments; the only utilities needed are water and electricity.

The reactor is of the swimming pool



Tell your AIM*. . . Collins Pine Company does . . .
Log bundling expands storage pond capacity

COLLINS PINE COMPANY OF CALIFORNIA, at Chester, worked with their Acme Idea Man to develop a log bundling method which increased their storage pond capacity and reduced log handling costs. (Idea No. U6-26)

Logs are bundled with heavy-duty Acme Steel Strapping, allowing pond storage in depth which has nearly tripled pond capacity. Log handling costs have been slashed by 2/3 as bundling has eliminated handling single logs. Entire truck loads of logs are now bundled and handled as individual units. Log quality is kept high because pond storage has sharply reduced blue stain and end checking resulting from cold decking.

Tell your "Acme Idea Man about your problems. He will draw upon his specialized experience and knowledge of hundreds of successful case histories to help improve your operations. Write Dept. BGU-117, Acme Steel Products Division, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Ave., Toronto 13, Ontario.

Acme Idea Man
Art Hall helped
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STEEL STRAPPING

THE FROSTING ON THE CAKE PAN...

**WEAR-EVER ALUMINUM
LAYER CAKE PAN**

BAKES PERFECT CAKES NO GREASING NEEDED
This shiny aluminum pan conducts heat fast and evenly, insuring a tender gold-brown crust and even texture. For all types of cakes. Place a sheet of waxed paper on the bottom and your cake can be removed easily without sticking. Easy to keep clean.

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The recipe — a special water-soluble gumming developed by Dennison to hold this vivid color-process label to aluminum ware. Add controlled die-cutting and close register of fadeproof inks.

The result — a sales-making label for WEAR-EVER Aluminum.

From pans to pants, Dennison can design a label to do a better job for you. Write or call your nearest Dennison office.

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clues

is BUSINESS WEEK'S own classified advertising section. You can use it effectively and economically to offer or seek business opportunities—positions—personnel

type, a great advantage in a training unit since students can view the inner workings through its open, water-shielded top. The complete reactor, including shielding and instrumentation, will cost between \$135,000 and \$150,000.

NEW PRODUCTS BRIEFS

Pilots of DC-8 jets for United Air Lines will practice landings in a new flight simulator that Link Aviation, Inc., is building. A closed-circuit TV set hooks up to a scale model of an airport will give them the illusion of really landing a DC-8 on a runway; controls are arranged to imitate the plane's performance. The unit, which is also a flight trainer, costs \$800,000.

A steel plate cutter that "reads" blueprints and guides the cutting torches accordingly has been developed by Aero-jet-General Corp., to sell for around \$125,000. It reads 1/10 scale drawings, can handle 12-ft. by 50-ft. plates. Aero-jet-General says it can reduce labor costs in plate-cutting as much as 70% in the shipbuilding industry, where it is still common practice to mark out and cut hull plates by hand. Sensing devices also keep the cutting torches at their most efficient height.

Mobile banks, mounted on trucks, are being built for the Central and South American trade by Gerstenslager Co. of Wooster, Ohio. The 32-ft. by 8-ft. interior provides four built-in tellers' cages, writing stand, and room for the four tellers and their customers, a cashier, and a guard-driver. The first model, which includes mahogany paneling but not air conditioning, costs about \$22,500.

A low-cost air filter for commercial and home air-conditioners that recirculate the inside air has been developed by Connor Engineering Co. of Danbury, Conn. It's an activated-carbon (gas-mask type) filter that fits behind the dust filter and cleans 20% of the air at each pass. It comes in four sizes ranging from \$16.50 to \$21.

Movie cameras continue to go automatic. Revere Camera Co., Chicago, now has brought out a line of 8 mm. cameras that are automatically set by an electronic device for computing and controlling exposure. These Electric Eye-Match cameras also include a special-effects control allowing professional-type fades and deliberate under and over exposures. The top camera in the line is a three-lens—normal, wide-angle, telephoto—(magazine loading) turret model selling for \$199.50.

compare...



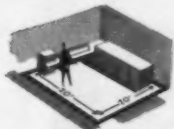
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Here is the world's first and only large-scale, all-transistor data processing system . . . unsurpassed in capacity and performance. Transac is meeting the modern challenge for faster, smaller and more reliable large-scale data processing systems. Philco invites you to consider the many outstanding advantages of the new Transac S-2000 before you decide on *any* large scale data processing system.

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1/10 THE FLOOR SPACE. The complete Transac S-2000 system will fit into a 20' x 20' floor space. A tremendous economic advantage where space is at a premium.

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Compare!



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Compare!



NO EXPENSIVE SITE PREPARATION. No special reinforcing or ducting of floors, installation of power lines, etc., are necessary for quick installation or relocation of Transac S-2000.

Compare!



NO COSTLY AIR CONDITIONING. Transistors generate practically no heat. Transac S-2000 needs little air conditioning as compared to the 40 tons or more required by vacuum tube systems.

Compare!



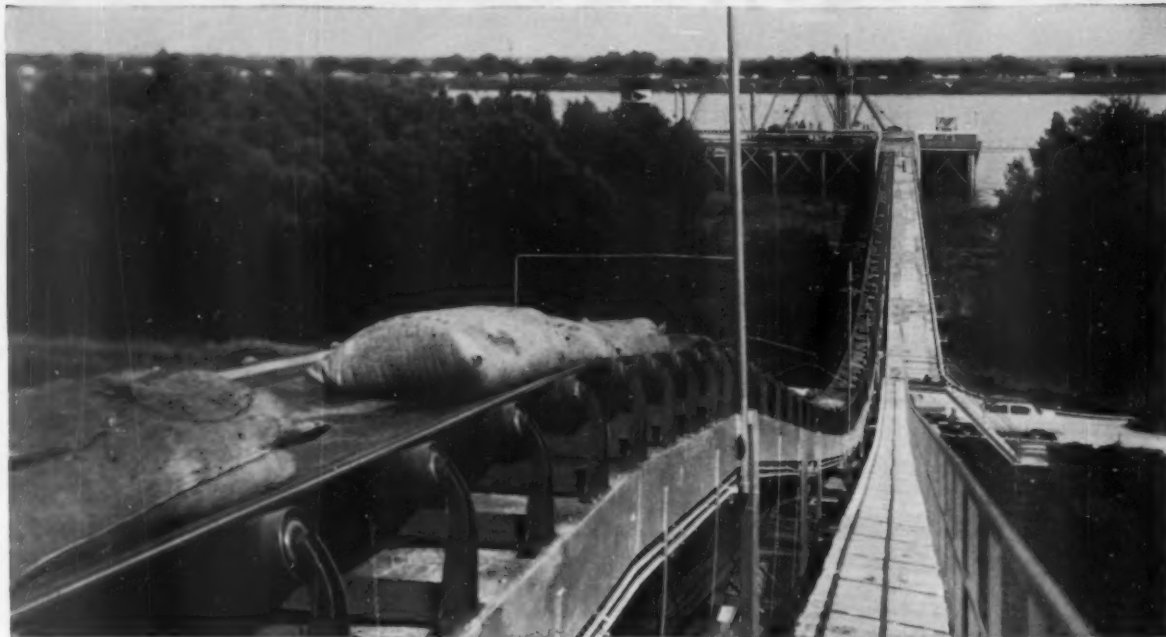
GET ALL THE FACTS. Please write for illustrated brochure describing the modern Philco Transac S-2000 system.

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Bagged sugar moves fast from ship to warehouse on sturdy belt conveyors using Jeffrey Belt Idlers—travels on the level along the dock, then 1500 feet upgrade to the warehouse. Unloading is speeded up, handling of the bulky bags is simplified and costs are held down.

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The Cars in the Middle in '58

The cars shown on this page constitute the biggest question mark in Detroit. They are called "medium-priced" cars. Collectively, in the auto industry's reckoning, they should account for nearly 40% of all automobile sales. That's why they are a puzzler. Not since 1955 have these cars taken that high a piece of the market, and some informed men doubt that they ever will again.

But the doubters don't include the managers of the factories that build the medium-priced cars. Manufacturers spent something like \$750-million in bringing these 1958 models to market. Their prescription for recent ills is traditional: new and fancier models, broader market coverage.

Accordingly, in the 1958 products of the medium-priced makers, you will find a bewildering array of models and prices—almost, but not quite, something for everyone.

• **Actions Speak Loudly**—Oldsmobile has made a move that's heretical for Detroit—it has reduced the horsepower of one of its models. Pontiac and Mercury have put in new lines, stretching their price coverage upward. Chrysler pushed a model downward in price. So did American Motors. One of Buick's models is not in the medium-priced class at all; it competes with Cadillac, Lincoln, and Imperial. And, of course, there's the new Edsel, going to market for the first time.

These moves indicate the manufacturers' own estimate of what is wrong with the one market that worries Detroit most.

I. Fuzzy Class Lines

Using factory-suggested list prices (which have little resemblance to retail prices) as a guide, the medium-priced cars begin with the 6-cyl. Dodge Coronet at \$2,235 and range up to the Chrysler New Yorker convertible at \$4,356. But the price group isn't sharply defined. On the low end of that wide spread, there are Fords, Chevrolets, Plymouths, and Studebaker Champions costing more than the cheapest Dodge. At the other extreme, the cheapest Cadillac is priced only \$19 higher than the Chrysler New Yorker (disregarding a difference in body styles).

As a matter of fact, one Ford model—the retractable hard-top—at \$2,907 is smack in the middle of what is thought to be the "medium-priced" class. And almost any top-line Ford, Chevrolet, or Plymouth equipped with automatic



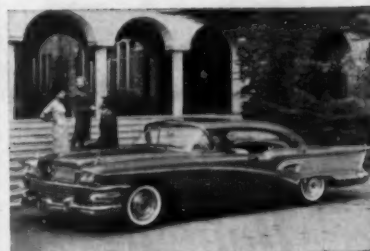
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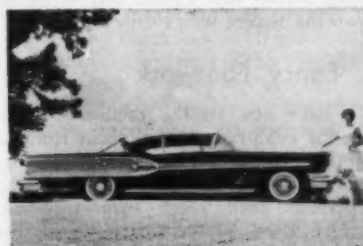
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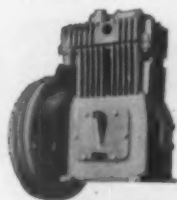
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transmission, radio, heater, power steering, and power brakes will fall well up in the medium-priced range.

• **Middle Class**—In the 1930s, when car ownership was more sharply defined by income strata and credit terms were strict, the cars in between the Ford-Chevrolet-Plymouth and Cadillac-Packard-Lincoln categories took less than one-third of the market.

After the war, with personal incomes high, medium-priced cars accounted for 40% of all sales in 1950 through 1952, dropping to 38% in 1953 and 36% in 1954 when the economy dipped.

In 1955 came the heyday of the middle-price class. With credit exceptionally easy, this group of cars rose to 40.8%. Car prices increased in 1956 and 1957, and credit tightened. Medium-price buyers dropped last year to only 35.6% of the total and made up only 31.4% of the total through September of this year.

• **Favoring the Extras**—What happened, some Detroit people theorize, was this: Prospective buyers of medium-priced cars, who had been straining the budget to get into that class, found that what they were willing to pay could buy a "loaded" Ford, Chevrolet, or Plymouth but only a "stripped" Buick, Mercury, Olds, or Dodge. They preferred the extras to the basic cars.

Meanwhile, at the high end of the price class were buyers who could afford Cadillacs, Lincolns, and Imperials but who for one reason or another had stuck to Roadmasters, Olds, or Chryslers. When the prices of these cars went up, buyers figured they would be better off in paying a few hundred dollars more to get the truly high-priced vehicles.

Statistics support this argument. Ford Fairlane 500, Chevrolet Bel Air, and Plymouth Belvedere sales have increased far more than the other series of those makes. And the high-priced class has risen from 2.35% of the market in 1955 to 3.61% last year and 3.7% for the first nine months of this year.

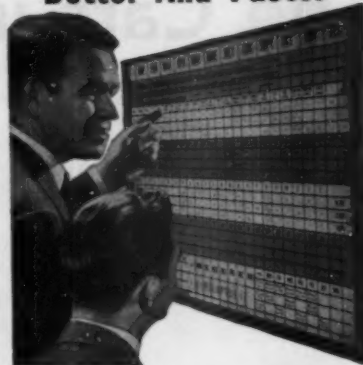
However, the precipitous 4.2% slump in medium-priced sales so far this year is nearly all accounted for by the combined 4.1% drop-off of Buick and Oldsmobile (BW—Nov. 9 '57, p81). In other words, say some auto executives, there's nothing wrong with the medium-priced market that a good year by these two GM makes won't cure.

II. Fancy Footwork

What's new in the medium-priced field for 1958 ranges all the way from a completely new entry to a scaling-down in size of an existing model.

Perhaps even more than General Motors, Ford Motor Co. is anxiously watching the medium-priced market. For it brought out its Edsel on the

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Edsel executives don't regret the early introduction; they wish they could have introduced even sooner. The interim has been a shake-down period, enabling dealers to establish their identity and get model preference in their areas. The Edsel Div. has closed down its Somerville (Mass.) assembly operations because demand in the East alone couldn't support manufacture of only the two top-priced series, Corsair and Citation; that market will be served from Midwest plants. And the division is busy transferring cars from one dealership to another to meet patterns of model preference.

- **Buick and Olds**—The changes that will attract attention are in the cars that have been in the price class all along.

Buick has taken note of its past experience. Well aware that in 1955, when it bumped Plymouth out of third place, price was its major weapon, Buick has kept its price increases to a minimum. (Pontiac has only one model cheaper than the lowest-priced Buick Special.) Also noting that its Roadmaster this year fared better than its other lines, Buick has pushed a Limited model up into Cadillac's price class and upgraded the Roadmaster to its 1957 Roadmaster 75 (\$400 extra) class.

Oldsmobile took a unique step. Taking heed of criticism of "gas-guzzling big cars, Olds is offering an engine for its lowest-priced series ("Dynamic 88") that develops 265 hp.—12 hp. less than last year. This is supposed to "increase gasoline economy up to 20%."

Feeling also that their cars last year were a bit on the conservative side, both Olds and Buick have been generous with brightwork on their 1958 models.

- **Moving Up**—Most of the other medium-priced makers revamped models to spread their market coverage.

Mercury has entered the top end of the field for the first time with its Park Lane, built on a 125-in. wheelbase (3 in. longer than the other Mercurys) with an over-all length of 220 in. and a 360-hp. engine. It is designed to compete against Buick's Roadmaster 75.

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CARS starts on p. 199

although its wheelbase is 2½ in. shorter. Mercury's Montclair is lined up against the Buick Super, while the Monterey is supposed to sell against the Century and Special.

Pontiac has added a series at the top end of its line. This new Bonneville is offered in two body styles: a two-door hardtop and a convertible. Pontiac's general manager, S. E. Knudsen, says, "We designed the Bonneville series for the man who craves a distinctive family sports-type car." Four bucket seats are available as optional equipment. The Bonneville convertible carries a factory list of \$3,277, which is \$350 more than the highest-priced Star Chief, not counting station wagons.

Studebaker-Packard Corp., intent on trying to rebuild Packard prestige, now has a Packard Hawk, modeled roughly after the Studebaker Hawk models. It will be priced up near \$4,000 and be more of a sports-type car than a family sedan. The regular Packard models, to be brought out in December, will be priced lower than the Hawk.

• **Moving Down—Chrysler Div. and American Motors Corp.** went the other way in seeking a wider market.

Chrysler put its lowest-priced series, the Windsor, on a shorter wheelbase than last year (122 in. instead of 126 in.) and reduced its price slightly (to \$2,849), making it more competitive with the high end of the Pontiac line and the Olds Super 88.

American Motors abandoned its Nash and Hudson medium-priced cars. In their place is a new series, the Ambassador, utilizing the basic low-priced Rambler body but on a 117-in. wheelbase, compared with the Rambler's 108 in. The former Nash and Hudson cars had a 122-in. wheelbase. With the change, American Motors puts a "compact" medium-priced car into the market at \$2,369, compared with \$2,250 for the cheapest Nash or Hudson in the model year just ended.

• **Trying Every Trick—In this variety of** ways, the makers of medium-priced cars are prescribing for whatever ailments they see in their line of products. They're trying more glitter; more size, less size; higher price, lower price; more horsepower, less horsepower.

There's significance in the contradictions. Detroit is worried about the medium-priced market, but until the 1958 buyers are heard from, the motor makers are not sure just what one thing they should worry about most. **END**

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Getting Back Into the Missile Race

It is obvious this week that a new mood is rapidly developing in Washington. The first unwillingness to admit that anything really serious had happened when the Russians launched their satellite, the refusal to look the unpleasant facts of the situation in the face, is now giving way to a much more realistic attitude (page 39).

There was no hint of complacency in the two major speeches that Pres. Eisenhower has made to the nation in the past two weeks. On the contrary, the President made it plain that he is prepared not only to spend more money on missiles but to lay the facts before the country—"the rough with the smooth." If, as he says, some of these facts are reassuring, the White House apparently does not intend to use them to cover up others that are "sternly demanding."

The President conceded that the Russians have pulled out ahead of us in the missile race. And he announced a series of moves designed to recover the ground that we have lost:

- Spending more money for the military—to expand and improve our early warning radar system, disperse our Strategic Air Command bombers to give the Soviet a smaller target for its ballistic missiles, increase pay of military technicians.
- Close collaboration within NATO in the development of weapons and in advanced research.
- A reshuffle of the administration of missile development to eliminate interservice rivalry.
- New powers for William M. Holaday, the special assistant to the Secretary of Defense for missiles.
- Appointment of James R. Killian, Jr., president of Massachusetts Institute of Technology, to a newly created post—Special Assistant to the President for Science and Technology.

All these moves are good. Whether they represent an adequate plan for getting out of our present perilous situation is something no one can yet tell.

The White House program does not look impressive when it is stacked up against the latest appraisal of the situation by Wernher von Braun, who is perhaps our top expert on missiles. Von Braun says flatly that it will take the U. S. more than five years to catch up with the Russians in missile work.

But as von Braun himself concedes, the speed of the present missile program will be "difficult to substantially accelerate." Careful administration, skillful judgment, and concentration on first things first are all important at this moment.

Obviously, much will depend on the two men who now assume the top responsibility for expediting missile development—Killian and Holaday.

When the President says that Special Assistant Holaday is to be "clothed with all the authority that the Secretary himself possesses," we hope this

means that he will have the power to knock heads together, to make decisions that stick, and to enforce with the full power of punishment the ground rules necessary to keep missile development from continuing as a post-graduate version of the Army-Navy football rivalry.

And when the President says that "Dr. Killian will see to it that those projects which experts judge have the highest potential shall advance with the utmost possible speed," we hope this means that the Administration really is prepared to throw the full weight of this, the greatest industrial nation on earth, behind the development of the weapons we need for survival.

The danger, as we see it, is not that the U. S. will have to make too many sacrifices to recapture the lead in the weapons race. The danger is that it will not be asked to make sacrifices enough.

It will be the business of Holaday and Killian to see that programs are set up to use every ounce of national energy that can be brought to bear on the problem. And it will be the business of the President and his Administration to see that there is no delay in putting the full strength of the nation behind these programs.

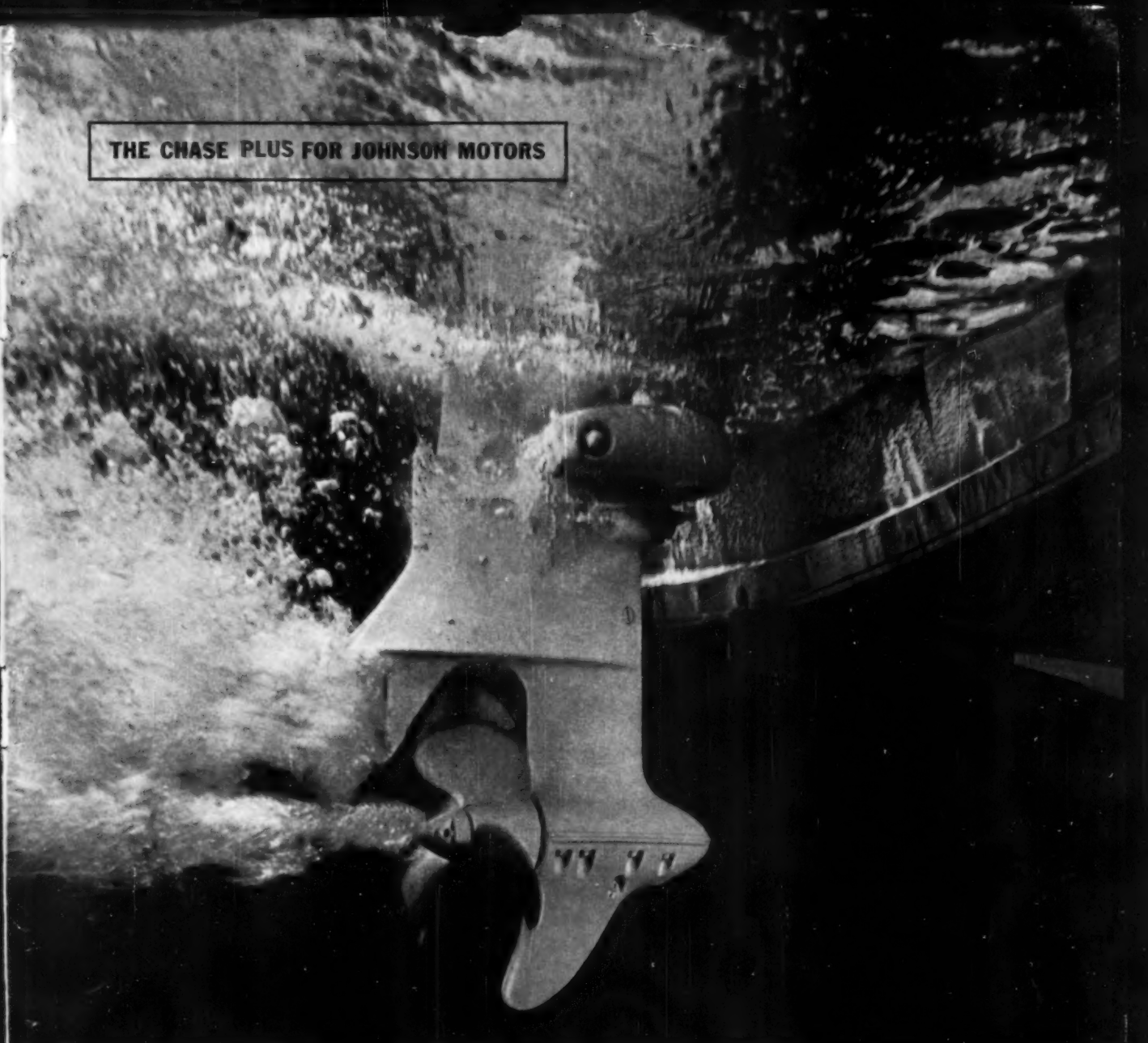
Wrong Foot Forward

Americans take naturally to some British politicians, finding it easy to accord them respect or even affection. For many years that certainly has been the case with Sir Winston Churchill. To a lesser extent it was true of Ernie Bevin, who held down the job of British Foreign Secretary when Labor was in office during the early postwar years.

The same cannot be said, at the present time, of Aneurin Bevan, the silver-tongued Welshman who is slated to become Foreign Secretary if and when Labor returns to power in Britain. On his recent visit to this country Bevan got himself off on the wrong foot. He began by following Indian Prime Minister Nehru's path—attributing to the U. S. and the U.S.S.R. an equal responsibility for the dangerous tension that exists in the world. To make matters worse, Bevan told his American audiences that this country can do business with Communist Party boss Nikita Khrushchev. In fact, said Bevan, we have no choice but to "do a deal" with Khrushchev, starting in the Middle East.

All of which reminds us of another British politician who failed to make a hit with most Americans—Prime Minister Chamberlain of Munich fame. Take away the umbrella and allow for a 180-degree shift to the political left, and Bevan presents in this country something dangerously close to the Chamberlain image.

THE CHASE PLUS FOR JOHNSON MOTORS



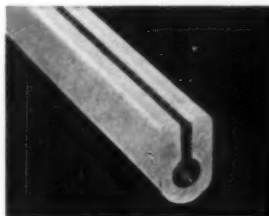
PHOTOGRAPHED UNDER WATER AT FLORIDA'S SILVER SPRINGS

Neat shift to an \$87,000 saving

The small gearshift rod-connector on this outboard motor is a big change for the better—thanks to Chase. It saves Johnson Motors \$87,000 over former production methods! How? Chase designed and produced a compact, *precise* brass extrusion from Kennecott metal. It fits right, grips tight, and requires only simplest machining! Get a team of Chase engineering and production experts working to improve *your* products—and cut your costs at the same time. Call your Chase representative today—either locally or at Waterbury 20, Conn.



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JOHNSON MOTORS NEEDED a strong, reliable outboard motor shift rod-connector. They tried steel stampings. Too weak. Parts machined from bar stock? Too bulky. Cost-cutting solution: a 15/32 inch, Chase-designed extrusion of Chase brass. Chase can help you too!

Another new development using

B.F. Goodrich Chemical raw materials



This "Blue Ribbon Wonder Horse" is produced by Wonder Products Company, Collierville, Tennessee. B. F. Goodrich Chemical Company supplies the Geon polyvinyl materials.

HORSE MADE OF GEON MAKES MORE MONEY THAN NASHUA

THE small fry find this hobby horse so appealing that its sales exceed the earning rate of any live thoroughbred.

The horse is made from a plastisol based on Geon polyvinyl materials. Properties of the material make it possible to rotationally cast the horse in one piece—removing size and cost limitations experienced with other plastics.

Why Geon Proved Best—The manufacturer uses two Geon resins which blend perfectly into an easy flowing plastisol, and provide the right combination of durometer hardness, ten-

sile strength, heat stability, and low viscosity range. Best of all, the Geon materials permit exceptional accuracy of detail and color, for a true-to-life appearance.

How We Can Help You—Here is a case where Geon improved product quality, and simplified production in the bargain. Similar benefits are realized in hundreds of other products, since Geon is a remarkably versatile material. It is used to make rigid or flexible products; coatings or foam. For information that may give you a product-improvement idea write Dept.

FA-11, B.F. Goodrich Chemical Company, 3135 Euclid Avenue, Cleveland 15, Ohio. Cable address: Goodchemco. In Canada: Kitchener, Ontario.



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